

STERLING “G” DIRECT-VENT (8531)

Gas Fired Direct-Vent Room Heater



Owner's Manual

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- ❖ Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- ❖ **WHAT TO DO IF YOU SMELL GAS:**
 - Do not try to light any appliance.
 - Do not touch electrical switches; do not use the phone in your building.
 - Immediately call your gas supplier from a neighbors phone. Follow your gas suppliers instructions.
 - If you cannot reach your gas supplier, call the fire department.
- ❖ Installation and service must be performed by a qualified installer, service agency or the gas supplier.

AVERTISSEMENT: Assurez-vous de bien suivre les instructions donné dans cette notice pour réduire au minimum le risque d'incendie ou pour éviter tout dommage matériel, toute blessure ou la mort.

- ❖ *Ne pas entresposer ni utiliser d'essence ni d'autrevapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.*
- ❖ **QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:**
 - *Ne pas tenter d'allumer d'appareil.*
 - *Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez.*
 - *Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.*
 - *Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.*
- ❖ *L'installation et service doit être exécuté par un qualifié installer, agence de service ou le fournisseur de gaz.*



317 Stafford Avenue
Morrisville, Vermont 05661
E-Mail: inquiry@hearthstoneoves.com



TABLE OF CONTENTS

TABLE OF CONTENTS	1
Introduction.....	2
Owner Information Record.....	3
High Altitude Conversion.....	4
Warning-Caution-Safety Information	5
Unpacking and Inspection.....	6
Installation.....	7
Positioning Your Stove	7
Hearth Requirements	7
Log Placement Within Unit	9
Log Set Removal.....	9
Allowable Venting Configuration Graphs	10
Restrictor Plate Installation And Settings	16
Electrical Connections	18
High Altitude Adjustments	19
Gas Connection	19
Gas Pressure Adjustment.....	19
Operation.....	20
Before the Stove is Lit.....	20
Lighting Instructions	21
To Turn Off Gas To Appliance	21
Initial Adjustments	22
Variable Output Control.....	22
Air Shutter Adjustments.....	22
Pilot Adjustment	23
Daily Operation.....	23
Routine Maintenance And Care	24
Servicing And Trouble-Shooting	25
How To Obtain Parts And Service	25
Broken Glass On Front Door.....	25
Trouble-Shooting Guide.....	25
Optional Blower Fan.....	27
Exterior Termination Clearances.....	28
Electrical Schematics.....	29
Gas Control Valve	30
Replacement Parts	31
Simpson Dura-Vent Parts:.....	31
Specifications	33
LIMITED WARRANTIES	34

INTRODUCTION

Congratulations on your purchase of a HearthStone® Sterling™ gas-fired direct-vent fireplace heater. The Sterling incorporates the latest in energy efficient gas technology which will provide you with clean, efficient heat for years to come. The combination of natural stones with cast iron gives the Sterling a pleasing look which can be maintained with minimum care.

To own a HearthStone is to make a statement - *a statement of your appreciation and understanding of exceptional quality*. Your Sterling is manufactured using imported cast iron and stone which combine to enhance the decor of any home. *Handcrafted in Vermont*, your HearthStone stove is a fine piece of furniture which will complement any room, even when it is not burning. However, when your Sterling is burning, it provides the warmth of radiant heat from the granite, marble and soapstone tiles.

Your Sterling is easy to use too. There is no chopping, hauling or stacking wood; simply adjust the temperature on your wall-mounted thermostat and it will keep your home at a comfortable temperature throughout the year.

Welcome to the HearthStone® family.

Please read this manual carefully to familiarize yourself with the safe installation, operation, and maintenance of your Sterling. Should you have any questions, do not hesitate to contact your HearthStone Dealer.

Certified for use by:

Board of State Examiners of Plumbers and Gasfitters
100 Cambridge Street, Room 1511
Boston, Massachusetts
02202

Owner Information Record

Record here all relevant information concerning the purchase and installation of your Sterling gas-fired heater. This information will facilitate servicing, purchase of replacement parts and warranty claims, if necessary. Keep your original receipt in a safe place as proof of purchase.

Serial Number: _____

Fuel type (check one): ☐ Natural Gas
 ☐ Liquid Propane

Sold by: _____

Phone: _____ Date of Purchase: _____

Installed by: _____

Phone: _____ Date of Installation: _____

Gas Supplier: _____

Phone: _____

Read this entire Owner's Manual before installing or operating the Sterling gas fired heater. Retain this manual for future reference.

NOTE: Your stove has been manufactured to operate at certain altitudes with LP or Natural Gas only. Please note the identification tag (as below) which appears on the rear of the stove. Use the space below to record the data on your tag.

This appliance has been converted to: Fuel Type: ____LP ____NG

This appliance has been converted for use at an altitude of _____ Input (Btu/h) _____ Orifice sizes: ____/____ (F / R)

Manifold Pressure _____

Date of Conversion: ____/____/____ Converted by: _____

High Altitude Conversion

For installation from 610-1370 meters (2000-4500ft.) The orifice sizes (DMS) for natural and propane gas are 47 and 56 (front), 55 (rear) respectively. See data plate for additional information. For high altitude installation consult the local gas distributor or the authority having jurisdiction for proper rating methods. If the installer must convert the unit to adjust for varying altitudes, the information sticker must be filled out by the installer and adhered to the appliance at the time of conversion.

This appliance has been converted for use at an altitude of _____

Orifice size _____ Manifold Pressure _____

Input(Btu/h) _____ Fuel Type _____

Date of Conversion _____ Converted By _____

Cet appareil est équipé pour des altitudes comprises entre 2000 et 4500 pieds (610-1370-m) seulement.

Cet appareil a été converti au _____

Injecteur _____

Pression à la tubulure (alimentation) _____

Débit calorifique _____

Warning-Caution-Safety Information

CAUTION

This gas appliance must be operated and maintained according to the instructions contained in this owner's manual. The unit must be inspected before use and at least annually by qualified service personnel. *More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.*

WARNING

Do not use this appliance if any part has been under water. Immediately call qualified service personnel to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

WARNING

This gas appliance must be connected to a properly installed and maintained venting system (chimney). Only *VENTING SYSTEMS TESTED AND APPROVED FOR THIS MODEL STERLING* may be used for installation. Absolutely no substitutions may be used. Tampering, modifying, disconnecting or overriding the vent safety shutoff system may result in an unsafe or hazardous condition which may lead to carbon monoxide poisoning and loss of life.

HOT SURFACES

Certain exposed surfaces of the Sterling will reach high temperatures during normal operation. Clothing or other flammable material should not be placed on or near the appliance. Do not place objects that may obstruct air circulation on, under or near this heater. Clearances to combustibles must be maintained as specified elsewhere in this manual. *The Sterling should be located out of traffic and away from furniture, draperies, clothing and flammable material.* Children and adults who are unfamiliar with heaters of this type should be alerted to the hazards of high surface temperatures and warned that they should stay away to avoid burns to skin or clothing ignition. Children should be carefully supervised when in the same area as the Sterling heater. Do not leave children unattended in the vicinity of this unit.

FIRE HAZARD

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this appliance. Clean the

area around, under and behind the unit on a regular basis to prevent the accumulation of dust and lint.

ELECTRICAL HAZARD

This appliance is equipped with a three-prong grounded plug if equipped with an optional blower fan. The three-prong grounded plug must be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug or otherwise attempt to circumvent the grounding protection provided with the unit. The appliance must be electrically connected and grounded in accordance with local codes or with the current NFPA 70 National Electric Code or CSA C22.1-Canadian Electrical Code.

CAUTION

This unit has a standing pilot light which is lit using a piezoelectric spark generator as described elsewhere in this manual. Never attempt to light the pilot light or main burners by hand with a match or lighter. If, after repeated attempts, the pilot light fails to light, discontinue operation, turn off the gas at the Sterling gas control valve and immediately contact qualified service personnel for assistance.

WARNING

This unit is designed to burn either natural gas or liquid propane as specified. Never burn paper, wood or any other materials in this unit.

CERAMIC LOGS

This unit is supplied with decorative ceramic fiber logs. If the decorative ceramic fiber logs become damaged or broken they must be replaced with similar, approved decorative ceramic fiber logs supplied by the manufacturer. Do not replace the manufacturer-supplied decorative ceramic fiber logs with unapproved ceramic logs, real wood logs or any other material.

WARNING

Never vent the gas heater to other rooms or buildings. Do not burn the gas heater with the viewing door open. Do not burn gas heater with broken glass. Only open front door for routine service. Do not slam door or strike glass. Venting terminals shall not be recessed into a wall or siding.

VENTILATION AROUND UNIT

The Sterling requires a free flow of air to provide ventilation around the unit. Your Sterling Direct-Vent gets its combustion air through the venting system, and will function well in extremely air-tight structures as well as less air-tight structures.

CAUTION

Any shield, door, safety screen or component removed for servicing the Sterling must be replaced prior to operating the unit. If you believe that your Sterling is not performing properly in any way whatsoever, immediately discontinue operation until the unit has been inspected and approved for continued operation by qualified service personnel.

WARNING

This unit is equipped with a *delayed ignition safety switch*. In the case of a delayed ignition, this switch may only be reset by a qualified service technician after careful inspection of all seals and gaskets.

WARNING

Do not clean glass when hot.

WARNING

Do not operate this stove with glass removed, cracked or broken. Do not substitute materials. Replacement of glass should be done by a licensed or qualified service person.

UNPACKING AND INSPECTION

PACKING LIST

- 1 - Sterling Gas Fireplace Heater
- 3 - Decorative Ceramic Fiber Log set
- 1 - Bag of Charcoal Embers
- 1 - Ember Screen
- 1 - Owner's Manual
- 1 - Warranty Card
- 1 - Thermostat with 40' Thermostat Wire

INSPECT FOR DAMAGE

Do not install or put into service a damaged or incomplete heater.

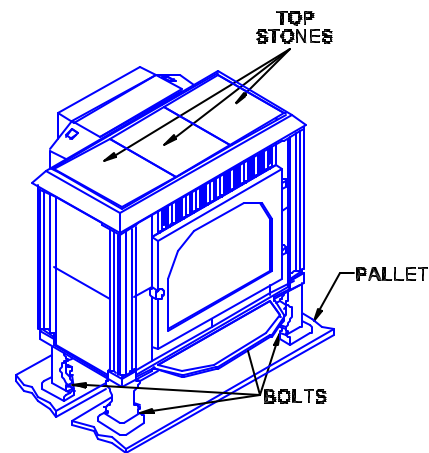
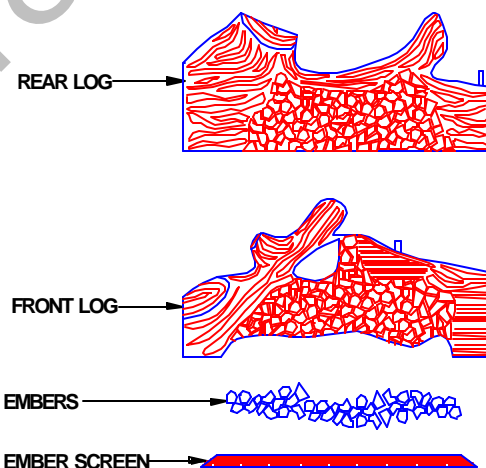
Prior to removing the shipping carton, inspect the carton for visible signs of damage. Carefully remove the shipping carton. We carefully package the Sterling to withstand shipment without damage. However, damage can occur during transit and handling, so take care to inspect for damage when unpacking and installing the unit.

The unit should appear square and true. The stones should be whole and without cracks, chips or breakage. The sheet metal parts should be smooth and free of bends or dents. The enameled cast iron (if enameled) should be free of chips or cracks. If visible or concealed damage is found or suspected, contact your dealer for instructions.

Note

*The three top stones are **not** cemented or otherwise permanently fastened in place.*

Carefully remove and set aside the three top stones. Use the protective wrapping material to temporarily protect the stones from chipping and damage



while the unit is inspected and installed.

With the top stones removed and set aside, undo the lag bolts which fasten the unit to the pallet. Take care not to mar or chip the enameled legs on enameled units. Lift the stove off the pallet and set it into place. For information regarding hearth requirements and minimum clearances, refer to *HEARTH REQUIREMENTS* and *STOVE CLEARANCES TO COMBUSTIBLES*.

The decorative ceramic fiber logs supplied with your Sterling are wrapped and shipped inside the firebox. Gently lift one side and swing out the log assembly. The Embers are packed separately inside the firebox. These parts are fragile and subject to damage or breakage if handled roughly. You should avoid touching other parts of your body after handling, and wash your hands immediately. Ceramic fiber will temporarily irritate exposed skin. Inspect the logs for breakage. If a broken or damaged log is encountered, contact your dealer for replacement logs.

INSTALLATION

The Sterling is a sophisticated gas-fired appliance. *Installation must be completed by qualified service personnel.* Any attempt by unqualified personnel to complete venting, gas and electrical connections and other technical components of the installation procedure with which he/she is not familiar and technically qualified will void the warranty and may result in carbon monoxide poisoning, explosion, fire, damage or loss of life. *Do not attempt to complete any part of the installation of this unit unless technically qualified to do so.*

Positioning Your Stove

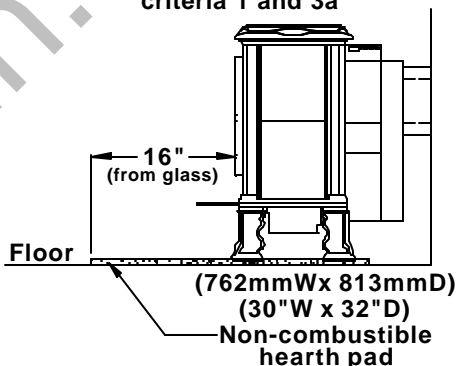
1. Place stove in desired location. Maintain clearance from combustibles.
2. Determine the vent configurations.
3. Layout fan location and plan gas line run. *Refer to Optional Blower Fan (page 31).*
4. Find the area of wall penetration. The hole must be positioned so that the vent has a minimum 1/4" per foot rise toward the termination.
5. Be sure there is no wiring or plumbing in the chosen location. The hole location must meet all local & National codes and cannot be easily blocked or obstructed (e.g., snow drifts).

Hearth Requirements

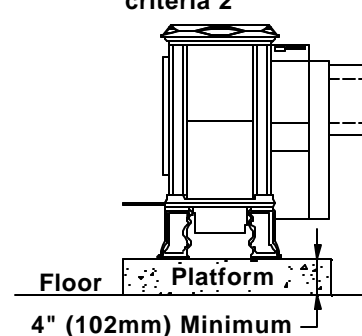
No floor protection is required if the stove is installed on non-combustible flooring. If the stove is installed on a combustible floor, it must meet one of the following criteria.

1. The stove is installed on a non-combustible hearth pad with a R-value of 1.1 that extends the full width and depth of the stove including 16" in front of the stove (measured from the glass).
2. The stove is installed on a platform with a minimum of 4"(D.V.) in height, extending no further than the ash lip. If the platform is covered with carpet or vinyl tiles it must be protected by a metal or wood panel that extends the full width and depth of the stove.
3. The stove is installed on a wood floor or, a wood or metal panel extending the full width and depth of the stove and has one of the following:
 - a. A non-combustible hearth pad with a R-value of 1.1 and a minimum measurement of 30"Wx16"D.
 - b. A hearth pad is not required when using the optional front door screen(item # 95-57200). This screen must be attached in accordance with the technical data sheet provided with the screen.

**Sterling DV Hearth Requirements
criteria 1 and 3a**



**Sterling DV Hearth Requirements
criteria 2**



Stove Clearances To Combustibles

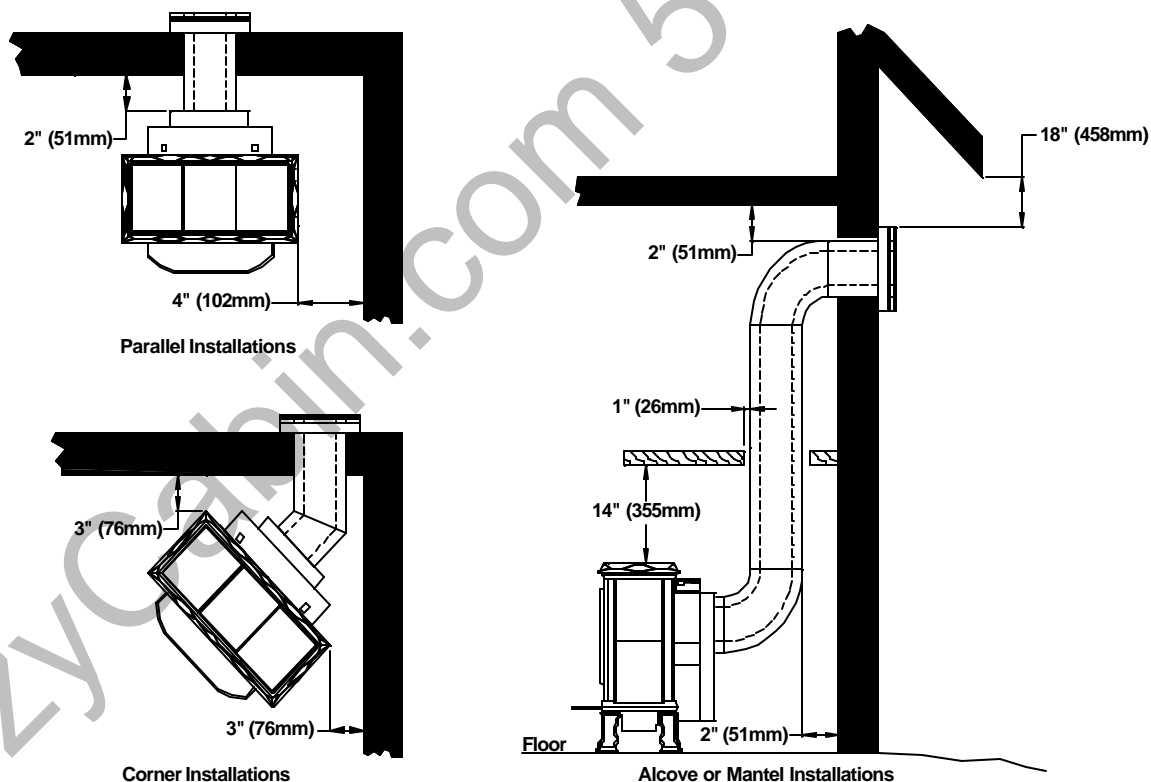
Due to high surface and radiant temperatures, the Sterling should be located out of traffic and away from furniture and draperies. Clothing and other flammable material should not be placed on or near the Sterling heater. Always maintain adequate clearances around the stove for ventilation.

When positioning the unit be sure to consider the need for access to the gas control valve access door on the lower right side of the unit as well as full access for periodic cleaning and servicing. Also consider the location of the Optional Blower Fan.

Minimum clearances to combustibles must be maintained as shown. Note that the rear clearance to combustibles will be determined by either the unit's or vent pipe's minimum clearance, depending on whether the installation calls for a top exit (vertical) vent within the room or a rear exit (horizontal), through-the-wall vent.

Minimum clearances to combustibles must be maintained as follows:

Sterling DV Minimum Clearance to Combustibles



Log Placement Within Unit

CAUTION

Fragile! Handle the log set with care. Always wear gloves and safety goggles while handling the logs set.

Position the front and rear burner tubes in their cradles firmly. Center the ember screen directly on the front burner tube, with the cut out set over the pilot. The rear log fits tightly to the rear of the firebox.

Note

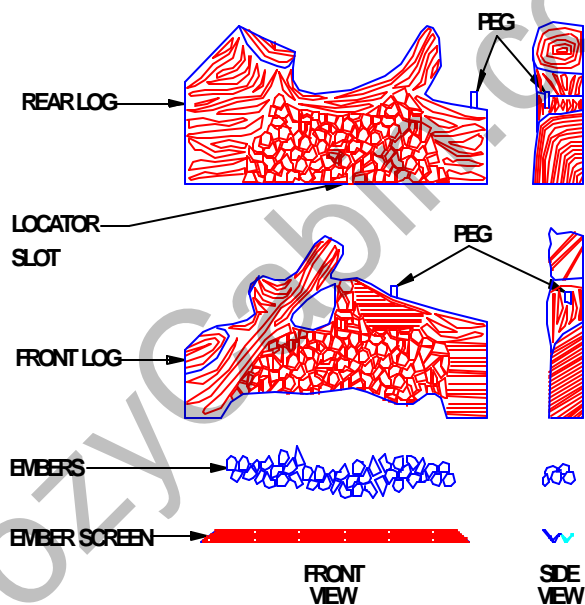
There is one "locator" slot in the base of the rear log to aid in correct placement.

When setting the log, place the rear log over the "locator" and push log firmly against rear wall of the firebox. The next piece to install is the front log piece. Stand this piece directly between the two burner tubes. The middle log will now fit over the peg locators provided on the two larger logs. Open the bag of embers and place in a random pattern on the screen. Do not place embers on or in front of the pilot.

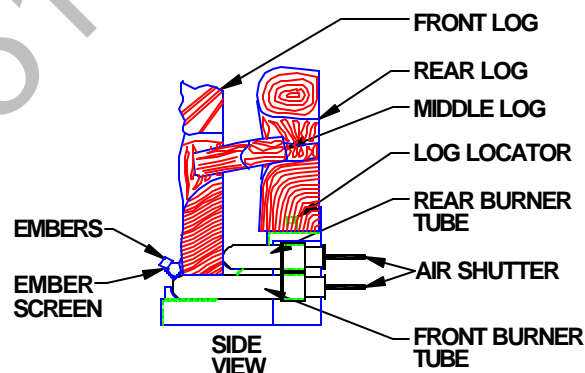
Note *Exact positioning of the log set is required in order to obtain a pleasing flame pattern and efficient combustion. Incorrect log placement may cause carbon build-up, excess thermal stress on the log set and stove parts, reduced efficiency and, high levels of carbon monoxide.*

Log Set Removal

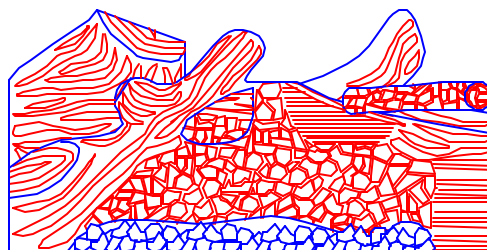
To remove the log set, follow the Installation of Log Set instructions in the reverse order.



Sterling DV Log Set Assembly



Sterling DV Log Set Assembly



Sterling DV Assembled Log Set

Allowable Venting Configuration Graphs

WARNING

This appliance must not be connected to a chimney flue serving a separate solid-fuel burning appliance.

The only type of vent pipe approved for use with your Sterling Direct-Vent stove is Simpson Dura-Vent's GS Direct-Vent Pipe. After determining the venting configuration for your stove, select the Simpson Dura-Vent system and HearthStone's Dura-Vent exit starter collar adaptor that will accommodate your installation.

Note

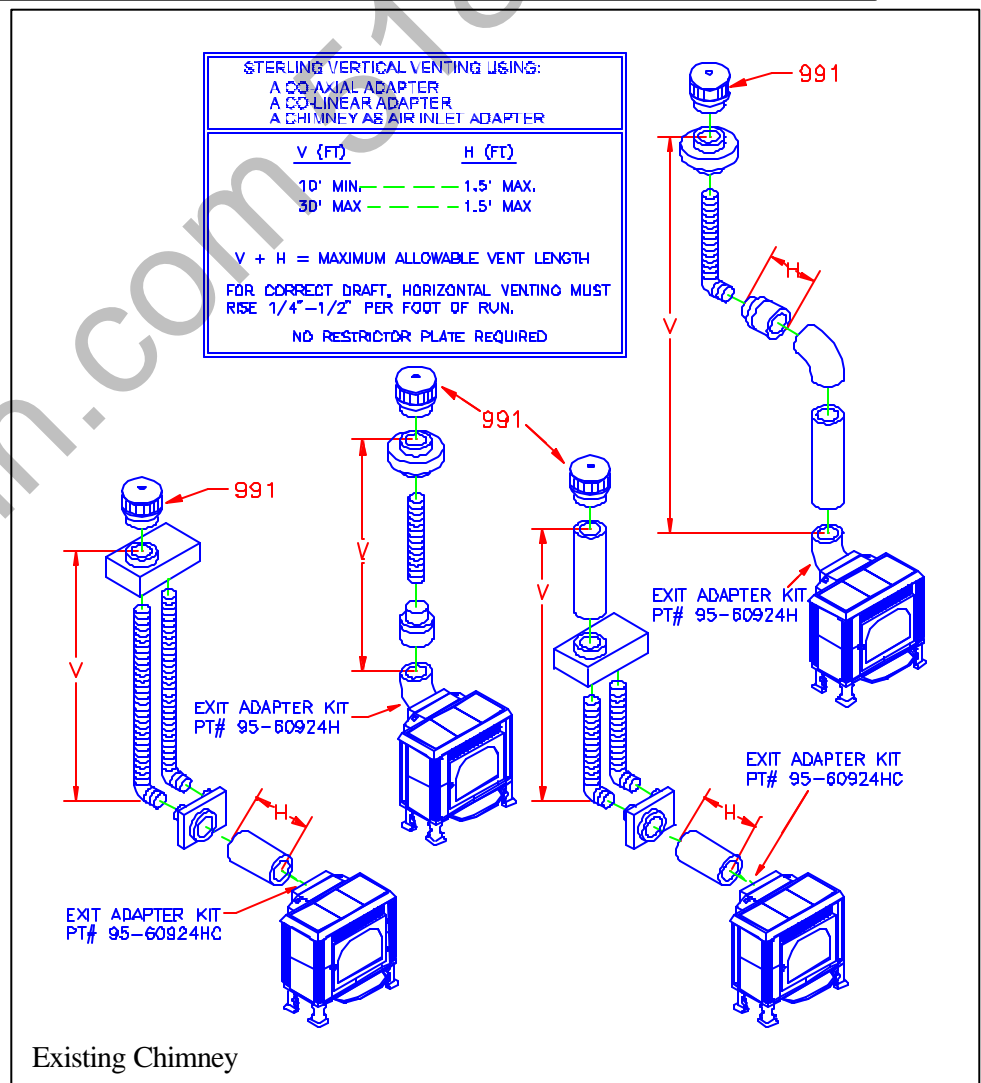
Refer to Appendix A Exterior termination Clearances, for determining where the termination cap position will be. Refer to Appendix D Simpson Dura-Vent Parts, for part numbers and descriptions of the venting components you need. If the vent-air intake system is disassembled for any reason, reinstall per the instructions provided for the initial installation.

A. Fireplace & Existing Chimney Installation

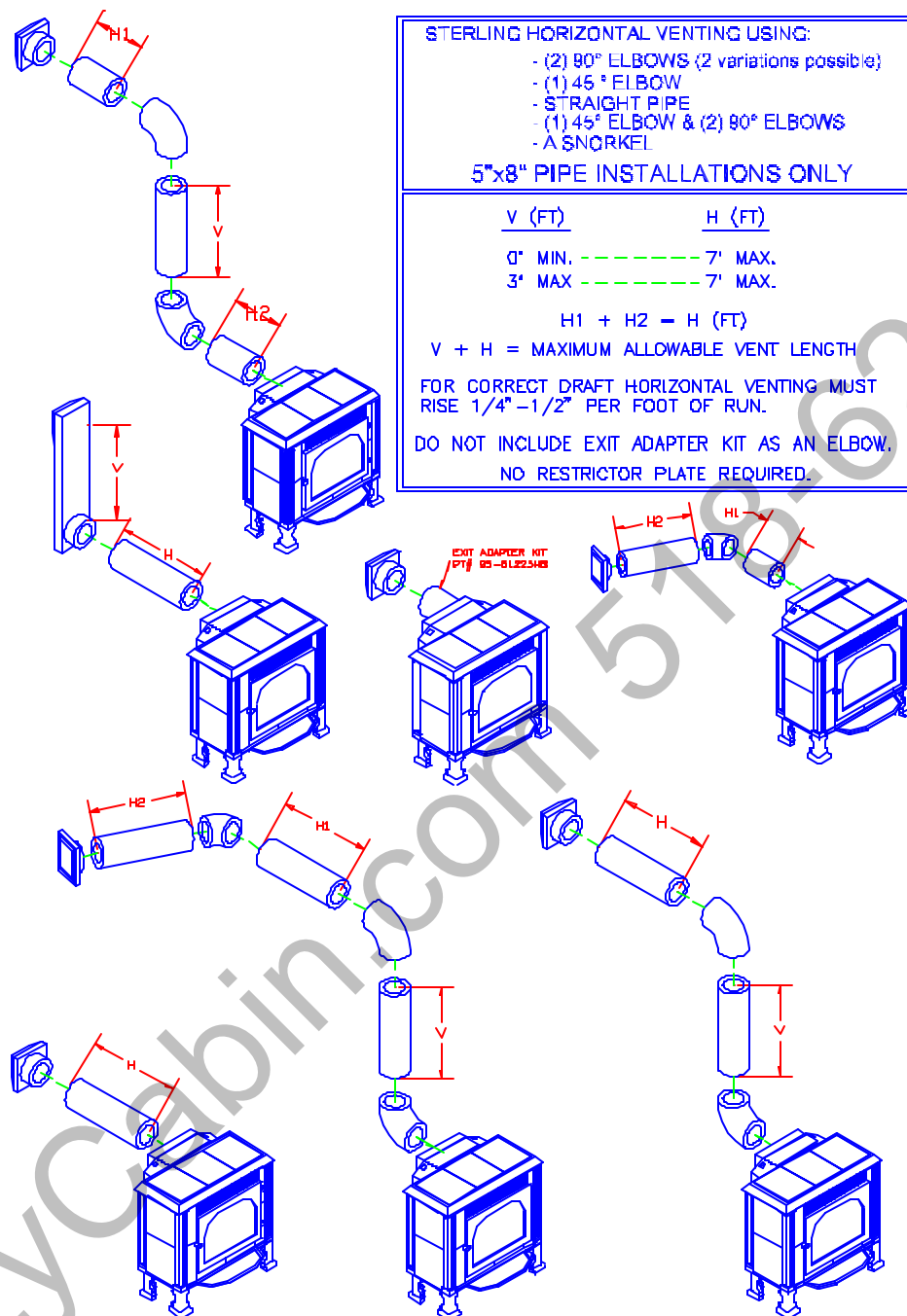
The use of an existing chimney as an air intake is not covered under the ANSI Z21.88-1998•CSA 2.33-M98 test methods and the resulting ITS/WHI product certification. The code Authority Having Jurisdiction must be consulted prior to proceeding with this installation method.

The vent/air intake termination clearances above the high side of an angled roof as follows:

Roof Pitch	Feet	Meters
Flat to 6/12	1	0.3
7/12 to 9/12	2	0.6
10/12 to 12/12	4	1.2
13/12 to 16/12	6	1.8
17/12 to 21/12	8	2.4

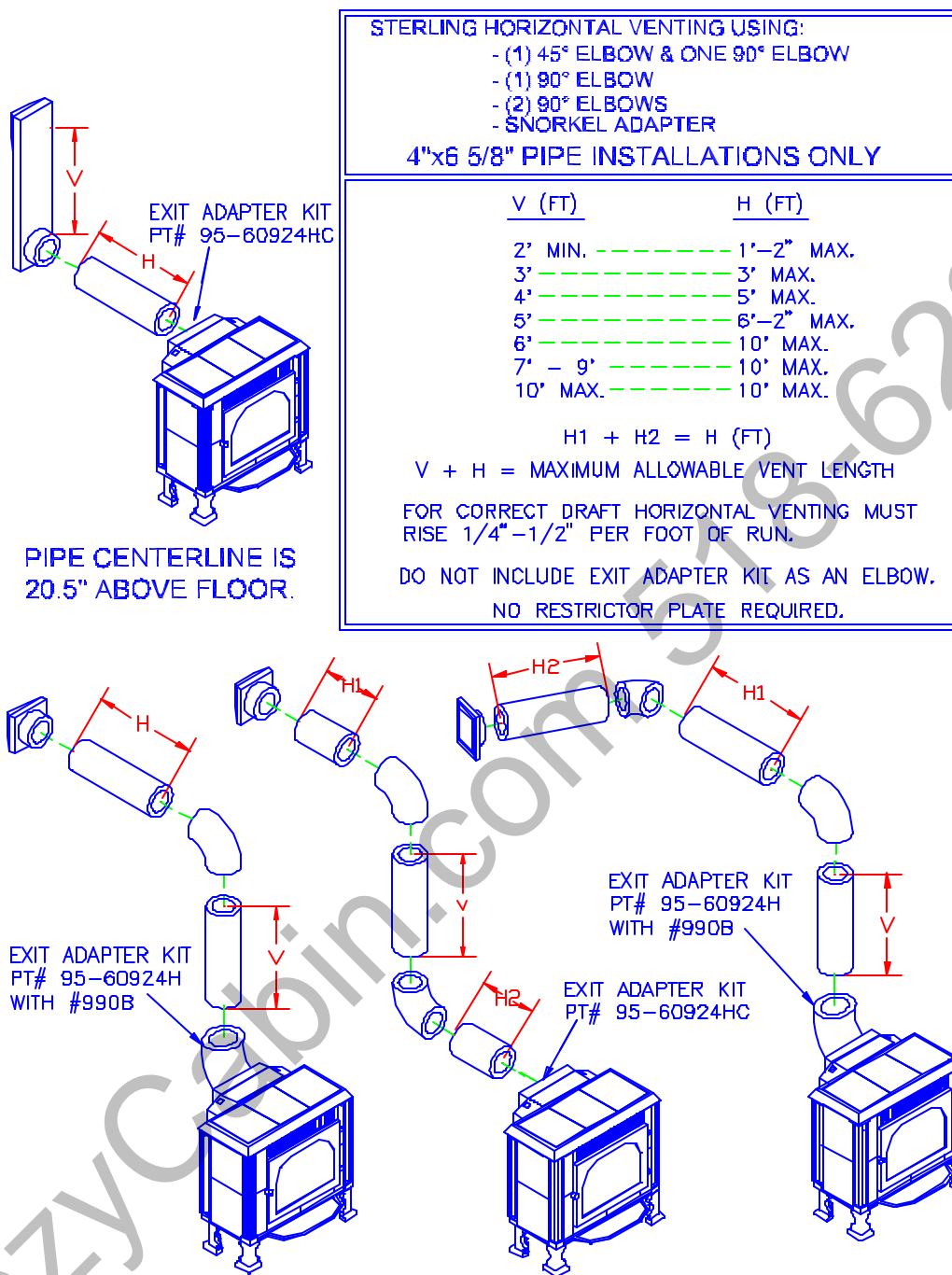


B. Horizontal Terminations for 5"x8" Pipe



USE PART # 95-61223HA FOR 5"x8" EXIT ADAPTERS.
 CENTERLINE OF PIPE IS 20.5" ABOVE THE FLOOR.

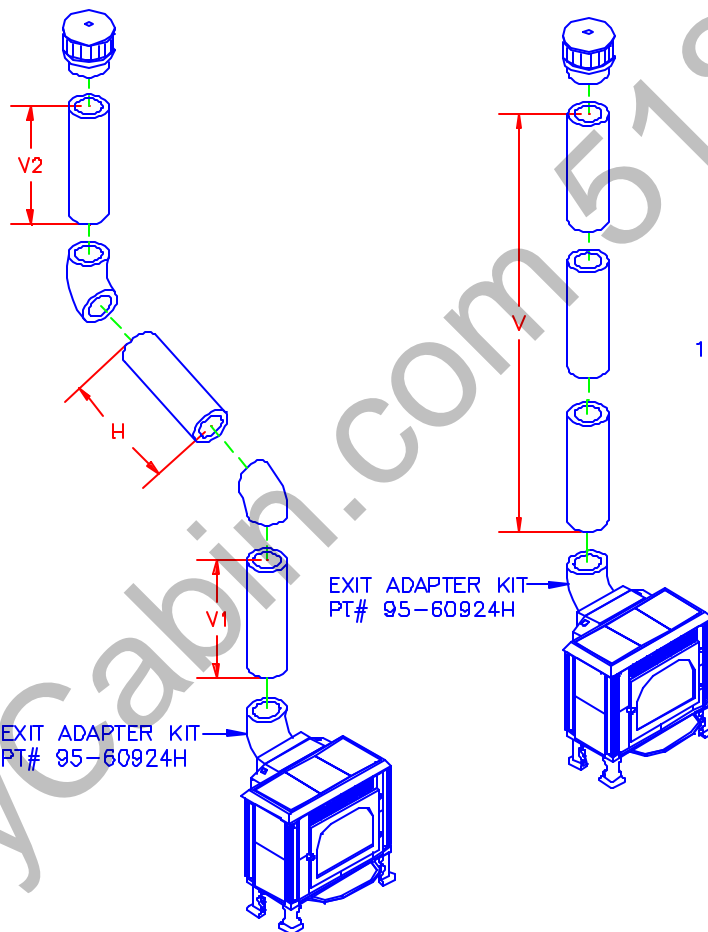
C. Horizontal Terminations for 4"x 6" Pipe



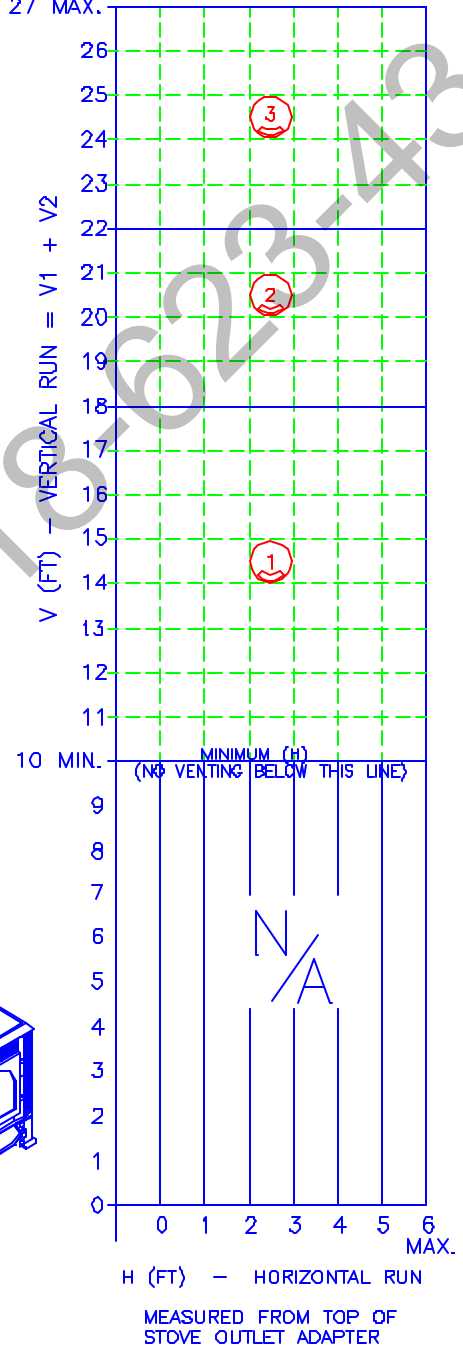
Horizontal Terminations for 4"x 6" Pipe

D. Vertical Terminations - Straight or (2) 45° Elbows (4"x6e" Pipe Only)

STERLING: VERTICAL VENTING USING: - (2) 45° ELBOWS - STRAIGHT PIPE (4"x6 5/8" PIPE INSTALLATIONS ONLY)	
V (FT)	H (FT)
10' MIN. -----	6' MAX.
11' - 26' -----	6' MAX.
27' MAX. -----	6' MAX.
V MIN. = 10'	
V1 + V2 = V (FT)	
V + H = MAXIMUM ALLOWABLE VENT LENGTH	
FOR CORRECT DRAFT, HORIZONTAL VENTING MUST RISE 1/4" - 1/2" PER FOOT OF RUN.	
DO NOT INCLUDE EXIT ADAPTER AS AN ELBOW.	

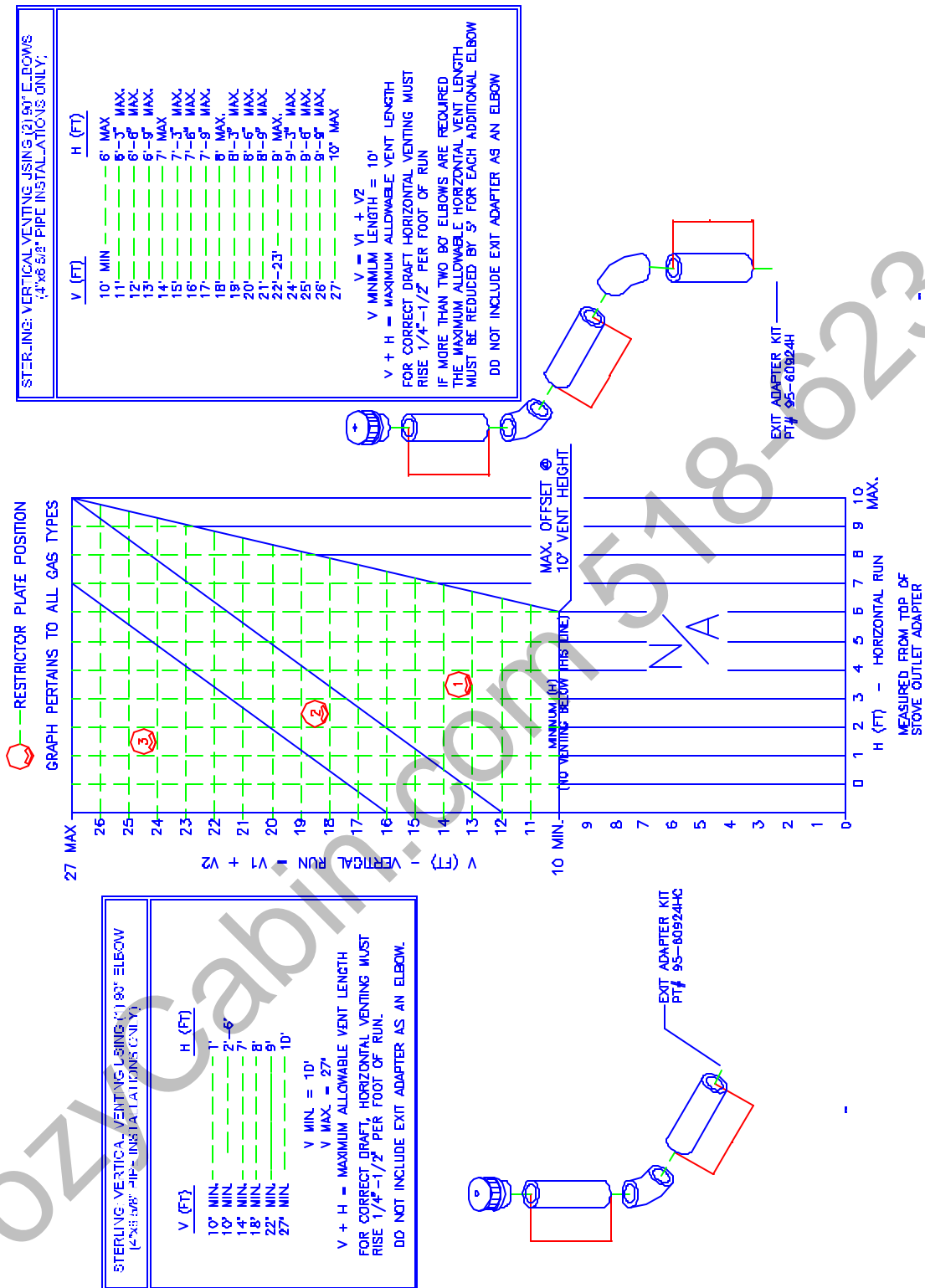


RESTRICTOR PLATE POSITION
GRAPH PERTAINS TO ALL GAS TYPES
27 MAX.



Vertical Terminations-Straight or (2) 45E Elbows (4"x6e" Pipe Only)

E. Vertical Terminations - (1) or (2) 90° Elbows (4"x 6" Pipe)

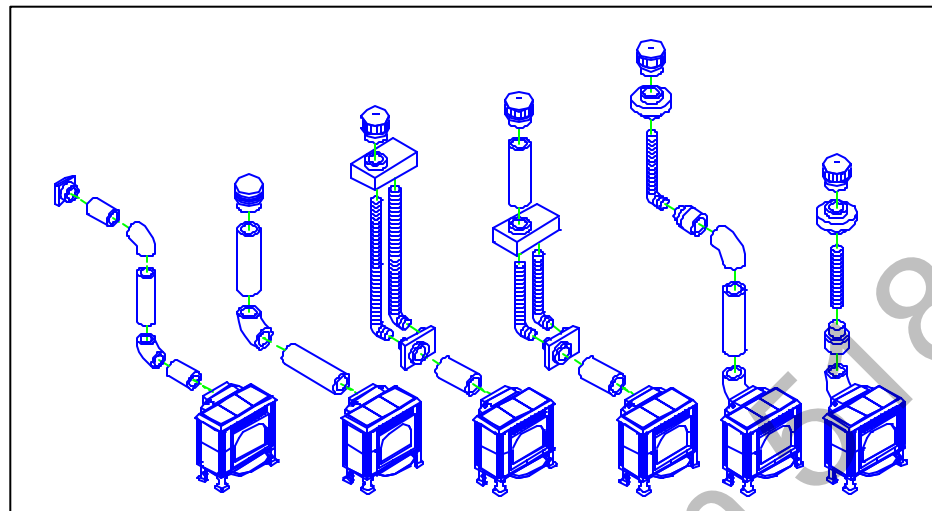
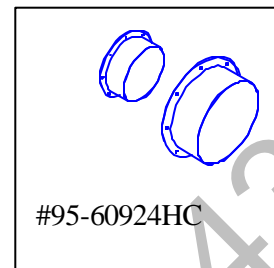


SIMPSON DURA-VENT OPTIONAL EXIT ADAPTORS

1. #95-60924HC: 4"X 6" REAR EXIT STARTER COLLAR ADAPTOR

Used in the following configurations:

- Straight back with vertical termination.
- Straight back (horizontal) to vertical with horizontal termination.
- Fireplace Liner Kits



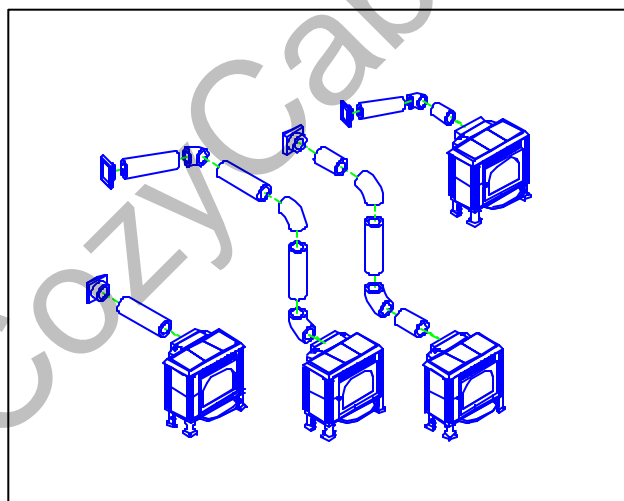
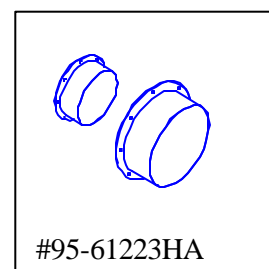
MAXIMUM RISE = 27'
MINIMUM RISE = 2'

Can not be used as follows:
Straight back w/ horizontal termination

2. #95-61223HA: 5"X 8" Rear Exit Starter Collar Adaptor

Used in the following configurations:

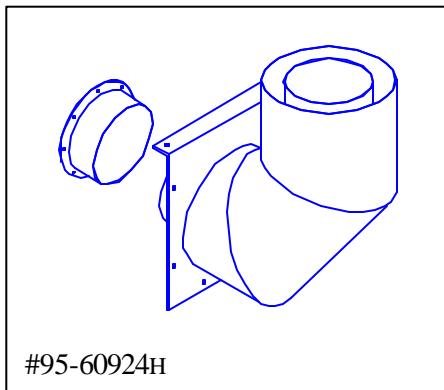
- Straight back with horizontal termination.
- Straight back to vertical to horizontal termination.
- Corner Installations.



MAXIMUM VERTICAL RISE = 3'

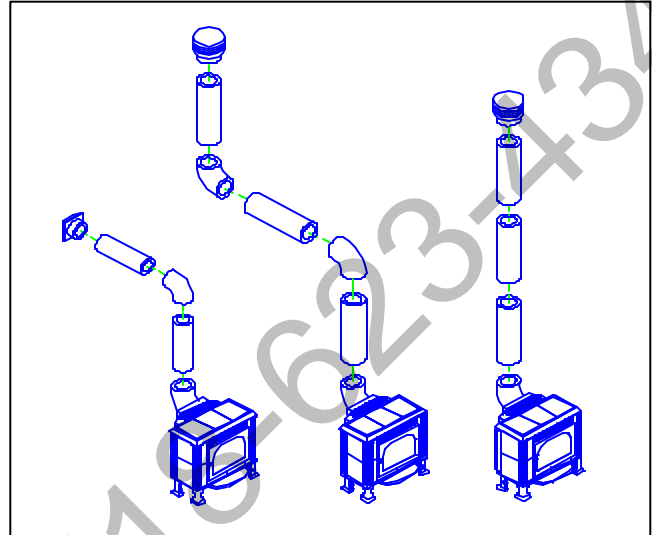
Cannot be used as follows:
-Straight back with vertical termination.

3. #95-60924H: 4"x 6" Top Exit Starter Collar Adapter



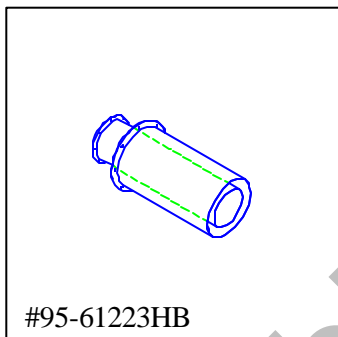
Used in the following configurations:

- Straight up with vertical termination.
- Straight up with horizontal termination.
- Straight up (vertical) to horizontal with vertical termination.



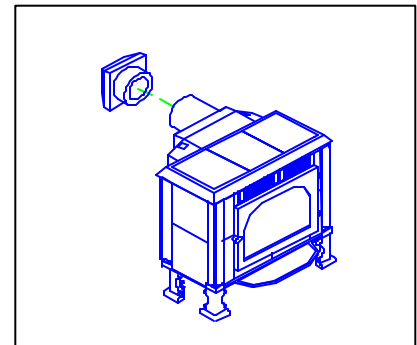
MAXIMUM VERTICAL RISE = 27'
MINIMUM VERTICAL RISE = 2'

4. #95-61223HB: 5"x 8" REAR EXIT STARTER COLLAR ADAPTER USED ONLY WITH THE #95-65000 BASIC VENTING KIT; BASIC VENTING KIT INSTRUCTIONS ARE INCLUDING WITH THE KIT.



Used in the following configuration:
-Straight back with horizontal termination.

FOR USE ON 2"x 4" OR 2"x 6" WALLS
MAX OVERALL THICKNESS = 7½"

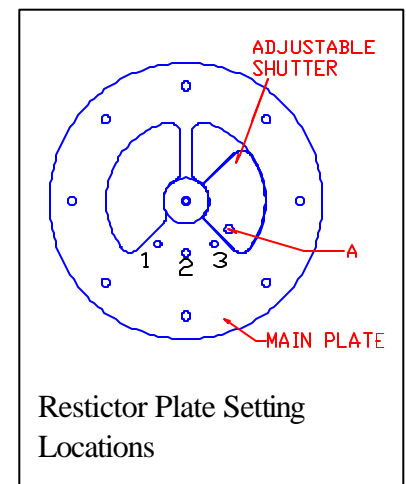


Restrictor Plate Installation And Settings

RESTRICTION PLATE

A vent restrictor plate is available for the appliance to adjust the flow rate of exhaust gases (draft). In controlling the draft, it also changes the burn and the aesthetics of the flame. Depending on the vent configuration, you may be required to adjust the restrictor plate position.

The restrictor plate consists of a rotating shutter below the starter section of pipe and an adjustment plate with index holes used to hold the shutter in a fixed position. The restrictor plate has three settings, one (1) being the lowest and three (3) being the highest. This ensures proper flames for the wide variety of vent configurations and efficiency. The charts in the venting configurations show if a restrictor plate is required, and which position the vent restrictor plate must be in. For a fast moving flame with lots of action use a lower setting. For a slow, lazy flame, a higher setting should be used.



ADJUSTMENTS TO RESTRICTOR PLATE

Make sure the unit is cool before touching any part of the stove or venting. Remove the venting (if installed already) before adjusting the restrictor plate. Once the venting has been set aside, check the Restrictor Plate screw location. There are three locations that the restriction plate can be positioned. Refer to the Venting Configurations for recommended restriction plate positions. Remove screw "A". Align hole on moveable shutter with hole in main plate which corresponds to the appropriate chart setting. Replace screw "A", referring to the figure in the previous section for the various Restrictor Plate adjustment setting locations. Fasten the screw into the proper hole and tighten.

Note:

These positions are based on lab results and can have some variance.

EXIT STARTER COLLAR ADAPTOR INSTALLATION INSTRUCTIONS

The following installation instructions are intended for the exit starter collar that adapts the Sterling to Simpson Dura-Vent. The Simpson Dura-Vent installation instructions and clearances to combustibles are available through Simpson Dura-Vent. At no time should you by-pass the Termination Specifications or Stove Clearances to Combustibles outlined in this manual or the Owner's Manual.

#95-60924HC: 4"x6-5/8" Rear Exit Starter Collar Adaptor

#95-61223HA: 5"x8" Rear Exit Starter Collar Adaptor

#95-61223HB: 5"x8" Rear Exit Starter Collar Adaptor

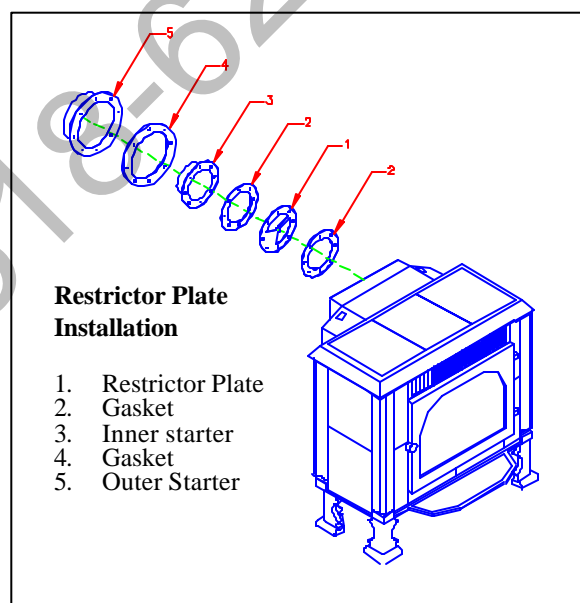
INNER COLLAR:

Locate the 8 screw holes where the inner collar attaches to the heat exchanger. Remove the 4 existing screws (placed for shipping purposes). Attach the inner collar and gasket (and restrictor plate where applicable) with the 8 screws provided with the collar.

OUTER COLLAR:

Locate the 8 screw holes where the outer collar attaches to the heat exchanger. Attach the outer collar and gasket with the 8 screws provided with the collar.

You are now ready to install your venting.

**5. #95-60924H: 4" x 6" Top Exit Starter Collar Adaptor****INNER COLLAR:**

Remove the short, inner collar piece from the inner 90E elbow. Locate the 8 screw holes where the inner collar attaches to the heat exchanger. Remove the 4 existing screws (placed for shipping purposes). Attach the inner collar and gasket (and restrictor plate where applicable) with the 8 screws provided with the collar.

OUTER COLLAR:

Locate the 8 screw holes where the outer collar attaches to the heat exchanger. Place the outer piece up to the heat exchanger, and at the same time, attach the inner 90E elbow to the short, inner collar (already in place). Attach the outer collar and gasket with the 6 screws provided with the collar. Be sure the outer collar flange is flush with the heat exchanger.

Note that the top of the outer collar flange folds up over the top of the stove. Once the collar is in place, mark and drill the two top holes using a power drill and 5/32" drill bit. Make sure the top lip of the collar flange is firmly pressed against the stove before drilling. Drill the holes as far forward within the hole to provide maximum support. After drilling, install the last two screws.

You are now ready to install your venting.

Connections

Electrical Connections

THERMOSTAT

The Sterling requires a wall-mounted thermostat for operation. The thermostat controls the unit by "calling for heat" and turning the unit on when the room is cold, and turning the unit off once the room has warmed sufficiently to satisfy the thermostat.

The Sterling thermostat is controlled by a 750 millivolt DC two-wire circuit. Both the thermostat and 40 feet of thermostat wire are included with the Sterling as standard equipment.

THERMOSTAT PLACEMENT

The thermostat should be placed in the same room or living space as the Sterling, typically 5' (1.5 m) off the floor and away from areas of draft, direct sunlight or other influences which would cause the temperature in the vicinity of the thermostat to be unrepresentative of the room temperature in general. Such influences might include strong lighting, a heater vent from the central heating system, a nearby drafty window, etc.

Placement of the thermostat on an inside wall rather than an outside wall is generally preferable. Do not place the thermostat directly behind or too near the Sterling, otherwise every time the thermostat calls for heat and the unit turns on, heat from the unit will immediately satisfy the thermostat and turn the unit off.

Note

Remove metal facade under ash lip for electrical and gas connections.

THERMOSTAT WIRING

The thermostat should be connected to the Sterling using 18-gauge insulated thermostat wire supplied. The thermostat wire from the Sterling to the thermostat can be surface mounted or routed under the floor, through walls, etc.

Connect one of the two conductor thermostat wires to the terminal on the gas valve marked "TH". Connect the other to the yellow wire from the on/off T-stat switch assembly. When making these connections, position the thermostat wire so that it extends towards the wall behind the Sterling, then towards the thermostat. Check to ensure that the connections are secure and permanent.

At the thermostat, the thermostat wire should be connected to the two connection screws on the thermostat base plate per the instructions received with the thermostat. Take care not to over-tighten the connection screws and not to damage the internal parts of the thermostat. The thermostat should be mounted level for proper operation and accurate temperature control.

DELAYED IGNITION SAFETY SWITCH

The delayed ignition safety switch should be checked prior to lighting the stove. The rod should be in the two notches on the top heat exchanger. The bottom of the rod should go through both holes in the switch bracket.

WARNING

Do not attempt to defeat or override this safety switch. Tampering with it by any untrained person is dangerous and will void the warranty. If there is a delayed ignition, the switch must be reset by a qualified gas technician.

Gas supply

NOTICE

A qualified technician must connect the heater to the gas supply and leak test the stove before it is approved for use. Consult all local code.

WARNING

The stove must be installed and connected in accordance with local codes, or in the absence of local codes, with the current edition of the National Fuel Code ANSI Z223.1 ! CAN/CGA B149 Installation Code.

High Altitude Adjustments

For high altitude installations consult the local gas distributor or the authority having jurisdiction for proper rating methods. If the stove must be adjusted, the information sticker on page 6 (provided with the high altitude kit) must be filled out completely and mounted to the stove per the instructions provided with the kit. This stove must be installed in accordance with CAN/CGA 2.17 installation codes.

All the Sterlings are shipped from the manufacturer fully assembled and ready for natural gas operation with minor adjustment. However, if the Sterling needs to be converted from natural gas to LP, conversion of the stove must be performed by qualified service personnel using the manufacturer-supplied optional conversion kit. Follow the conversion instructions supplied with conversion kit.

Gas Connection

The gas supply line connection is made to the Sterling's gas control valve using a $\frac{1}{4}$ " male N.P.T. fitting. The supply line should be $\frac{1}{2}$ " diameter pipe or tubing. We recommend a flexible line to avoid undue mechanical load on the valve and to ease thread alignment.

The supply line must include a manual shut-off valve and union so that the unit can be disconnected for servicing. The gas control valve has built in pressure taps for test gauge connections. Install a sediment trap as close to the inlet as practical (per National Gas Code).

Gas Pressure Adjustment

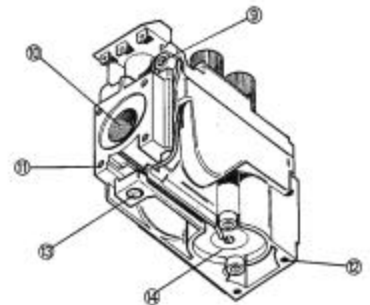
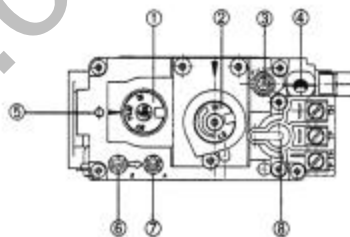
Once connected to the gas supply, the supply line and manifold gas pressures must be tested. The supply line pressure is tested to ensure it meets the minimum gas supply pressure as listed in the Specifications for the type of fuel in use (NG or LP). Connect a manometer to the supply line and adjust the incoming pressure if necessary to meet the required supply line pressure as listed in the Specifications. The manifold outlet pressure is tested by connecting the manometer to the manifold pressure tap on the Gas Control Valve

VALVE DESCRIPTION

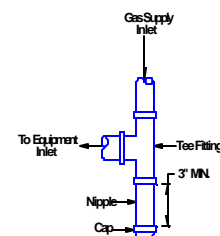
- ① Gas cock knob
- ② Manual HI-LO adjustment/pressure regulator adjustment
- ③ Pilot adjustment
- ④ Thermocouple connection
- ⑤ Mounting for piezo & bracket

- ⑥ Inlet pressure test point
- ⑦ Outlet pressure test point
- ⑧ Main operator
- ⑨ Pilot outlet
- ⑩ Main gas outlet

- ⑪ Flange securing screw holes
- ⑫ Additional valve mounting hole
- ⑬ Alternative TC connection point
- ⑭ Thermoelectric unit



The stove and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of $\frac{1}{2}$ " psig (3.5 kPa). The Sterling must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than $\frac{1}{2}$ " psig (3.5 kPa).



Sediment Trap

OPERATION

WARNING

If you do not follow these instructions exactly, a fire or explosion may result in causing property damage, personal injury or loss of life.

CAUTION

Lighting the first time and adjustments to the stove should be performed by qualified service personnel.

Once the Sterling has been set in place and connected, the stove is ready to be lit for the first time. Each Sterling is tested prior to shipment by the manufacturer, so ignition should take place without failure. However, a number of small adjustments may be necessary to compensate for variations in gas pressure, altitude and other factors particular to each installation.

Before the Stove is Lit

SMOKE AND FUMES WARNING

When lit for the first time the Sterling will emit some smoke and fumes. This is normal "off-gassing" of the paints and oils used in the assembly and manufacturing of the unit. Open windows to vent the room as necessary. The off-gassing and fumes will subside after the first 20 minutes (or it may last longer) of operation.

BREAK-IN WARNING

The natural stones used in the assembly of the Sterling were polished using a water-based polishing system prior to assembly of the unit. Any residual moisture in the stones must be dried out slowly to avoid damaging the stones. This is accomplished by adhering to the following break-in procedure.

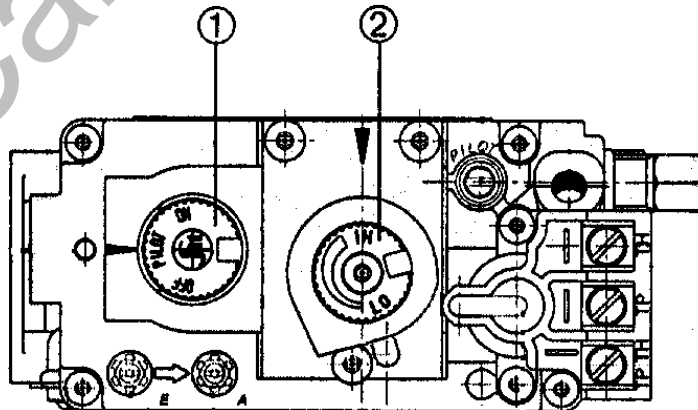
When lit the first time, the Sterling should be burned on low setting for 2 hours. This gentle warming of the unit will allow any residual moisture in the stones to evaporate slowly. Once this break-in procedure has been completed, the Sterling can be burned at will with no break-in restrictions.

PILOT LIGHT WARNING

The Sterling has a piezoelectric spark ignitor (the red push button located just above the gas control valve behind the valve access door) which ignites the pilot light by means of a spark at the pilot light assembly. Do not attempt to light the unit with a match or by any means other than the piezoelectric spark.

PREPARE FOR LIGHTING

Prepare for the lighting procedure by adjusting the thermostat (if equipped) to its lowest setting or OFF position. If the gas control knob (1) is not in the OFF position, turn the knob fully clockwise to OFF. Locate the variable output control knob (2) and turn it fully clockwise to the highest setting.



Lighting Instructions

The gas control knob is located in front of the stove-inside right, front leg.

1. STOP! Read the safety information above.
2. Set the thermostat to OFF position.
3. Unplug the fan accessory, if so equipped.
4. Push in and turn gas control knob clockwise to OFF.
5. Wait (5) five minutes to clear out any gas. If you then smell gas, STOP! Smell all around the appliance area for gas. Be sure to smell next to the floor because some gases are heavier than air and will settle on the floor. If you smell gas immediately follow the *What To Do If You Smell Gas* warning. If you do not smell gas, go to the next step.
6. Turn knob on gas control counterclockwise to "PILOT".
7. Push in control knob all the way and hold in. Immediately light the pilot with the gas lighter push in and "click" the red piezoelectric spark ignitor button. Continue to hold the control knob in for about 20 seconds after the pilot is lit. Release knob and it will pop back out. Pilot should remain lit. If the pilot goes out, repeat the operation.
 - ! If knob does not pop out when released, stop and immediately call your service technician or gas supplier.
 - ! If the pilot will not stay lit after several tries, turn the gas control knob "OFF" and call your service technician or gas supplier.
8. Turn gas control knob counterclockwise to "ON".
9. Shut the gas control valve access door.
10. Plug in fan accessory, if so equipped. Select "ON" of the on/off/T-stat switch, or if "T-stat" is selected:
11. Set thermostat to desired setting.

To Turn Off Gas To Appliance

1. Set thermostat to OFF position, or select the "OFF" position of the on/off/T-stat switch
2. Turn off all electric power to the appliance if service is to be performed. Unplug accessory fan (if equipped).
3. If shutting the unit for the non-heating season, turn gas control knob fully clockwise to "OFF". Do not force.

As a supplement to the above instructions: When pressing/clicking the red piezoelectric spark ignition button to light the pilot light, watch through the glass front door of the unit. Click the red ignitor button until a flame is visible at the pilot light and once lit, continue to press on the gas control knob for another 20 seconds, then release. Ascertain that the pilot light is still lit by looking through the front door. If lit, then turn the gas control knob fully counterclockwise to the ON position. If the pilot light failed to light or if it went out due to a premature release of the gas control knob while pressed in the PILOT position, wait 60 seconds for interlock to release, then repeat the lighting process as described above.

WARNING

The control has an interlock device. After shutting off all gas flow, the pilot burner cannot be relit until the thermocouple has cooled, allowing the electromagnet to be released (Approx. 60 Sec.). The gas control knob is designed to be operated by hand. Do not use any tools during this operation. Damaged knobs may result in serious injury.

Once the pilot light has been lit, the main burners are lit moving the thermostat to a high setting so that it "calls" for heat (*i.e. turns the unit on*). The main burners should light immediately. Note that the on/off cycling of the main burners are controlled by the thermostat but that the pilot light remains lit regardless of the thermostat setting. To turn the pilot light off, turn the gas control valve fully clockwise to the OFF position.

Once the unit is lit, observe the flame pattern and adjust as necessary per the following instructions while keeping in mind the off-gassing and break-in warnings listed above.

Initial Adjustments

Variable Output Control

The gas control valve (2) is equipped with a variable output control. This control varies the *rate* of heat produced by the stove of heat produced by the stove by varying the gas pressure to the main burner tube. The *length* of the burn cycle is affected by a combination of heat output and the thermostat setting. If your stove turns ON and OFF too often. Try, first, reducing the burn cycle by turning the HI/LOW knob on the control valve (2) to a lower setting. Using the variable output control, the heat output of the stove can be reduced for mild fall and spring months, or maximized for the colder winter months. This adjustment can be made by the homeowner, as necessary by turning the variable output control knob to "HI" "LO" or any setting between.

Air Shutter Adjustments

The air shutters are preset by the manufacturer for optimum operation and should not need adjustment by the owner. There are adjustable air shutters located on the main burner tubes on the right rear of the stove behind the right rear cover. The air shutters are used to regulate the air-to-gas combustion mixture which in turn influences the size and color of the flames. However, it may need adjustment once the unit has been installed to compensate for variations in supply line pressure, altitude and other variables. **WHEN TIGHTENING THE SHUTTER CLAMP SCREW, DO NOT OVER-TIGHTEN. TIGHTEN UNTIL THE SCREW-HEAD TOUCHES METAL, AND THEN ANOTHER 1/4 TURN.**

To determine if the air shutters need adjustment, it is necessary to view the flame pattern with the variable output control knob at its highest setting. Allow the stove to operate for 10 minutes to allow the entire stove to reach temperature and for the flame pattern to stabilize.

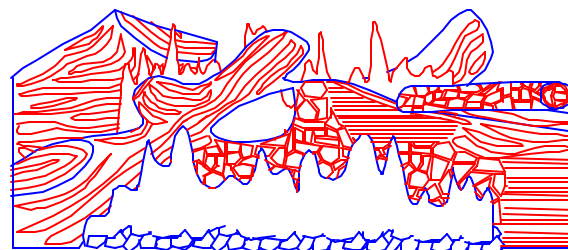
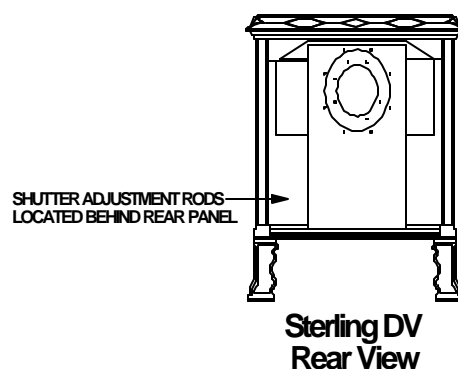
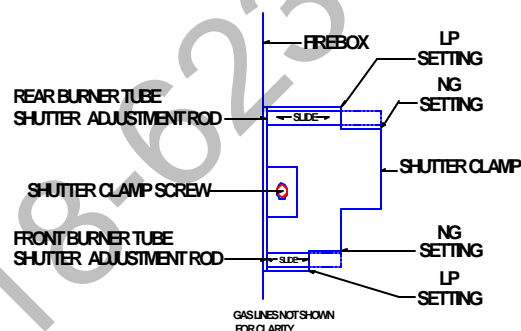
There are two simple guidelines to aid in determining the correct flame pattern: 1) If the flame at the base of the logs is completely blue, the air shutters may be open too far; 2) If the flame is dirty or licks the top of the stove, the air shutters may be closed too far.

To adjust the air shutter opening, simple loose the screw on the shutter clamp, and pull the adjustment rod to close the air opening, or push the adjustment rod to open the shutter. Closing the air shutters allow less oxygen to burn and results in a higher, yellow flame. Opening the shutters allow more oxygen to burn and results in a lower, blue flame, but too little air will result in incomplete combustion, low efficiency and a dirty burn with sooting resulting. Adjustment may be done while viewing the fire. Once the desired flame pattern is achieved, tighten the screw.

If the flame pattern continues to indicate a low flame or high flame (to where it is licking the top of the fire box) condition regardless of air shutter setting then it is likely that the gas supply pressure to the unit is too low or too great. Such a condition cannot be corrected through air shutter adjustment; an adjustment must be made to the gas supply pressure. Supply line and manifold gas pressure adjustment must be performed by *qualified service personnel*. Do not attempt to complete any of the installation or adjustment of this stove unless technically qualified to do so.

When adjusting the shutters for flame color take care not to obtain a flame which is too yellow (shutters closed; too little oxygen). While such a flame may be aesthetically pleasing, it is the result of incomplete combustion which will eventually result in an accumulation of carbon in the firebox, on the logs, burner tubes and window glass.

Sterling DV Air Shutter Adjustment



Sterling DV Flame Pattern

WARNING

The Control has an interlock device. After shutting off all gas flow, the pilot burner cannot be relit until the thermocouple has cooled, allowing the electromagnet to be release (Approx. 60 Sec.) The gas control knob is designed to be operated by hand. Do not use any tools during this operation. Damaged knobs may result in serious injury.

Pilot Adjustment

The pilot light is preset by the manufacturer and should not need adjustment. The pilot light flame should be large enough to engulf the thermopile and thermocouple located just next to the pilot light, but not so large as to create excessive noise or consume excessive gas. However, it can be adjusted by means of the pilot light adjustment screw located on the gas control valve. Remove the facade to access (located below the ash lip)

Note

The pilot light flame must properly engulf the thermopile so that the thermopile can generate sufficient milli-voltage (750 Mv) to power the millivolt gas control valve. Control of the Sterling by the wall-mounted thermostat may become erratic or non-existent if the pilot light flame is too small or misdirected away from the thermopile, or the stove may go out.

Daily Operation

The Sterling gas fireplace heater is easily operated by the homeowner once installed and adjusted by qualified service personnel. The stove is controlled via the wall-mounted thermostat during the heating season. Set the thermostat to the desired room temperature and the unit will cycle on and off as required. By adjusting the variable output control located on the gas control valve, the rate of heat output can be varied to meet the heating requirement of the season. Choosing a low flame setting will result in larger burn cycles at a reduced output, while choosing a high flame setting will result in a shorter, hotter burn cycle. Through trial and error the homeowner can select the optimum flame size for their setting and application.

During the summer's non-heating season, switch the wall thermostat to OFF, and turn off the pilot. This will improve the overall efficiency of the stove as the heat from the pilot is wasted. When putting the stove back into service follow the lighting instructions. *See Lighting Instructions.*

When the stove first lights, especially when cool, it is normal to experience some condensation on the inside of the window glass. This condensation will burn off within the first few minutes of the operation. If continuous condensation on the window glass or dripping water from any part of the stove or venting system.(chimney) is noted, immediately discontinue operation of the stove and contact qualified service personnel.

Keep the area around the Sterling clear of combustible materials, gasoline and other flammable vapors and liquids. Do not allow the placement of items near the stove that will obstruct air flow or be ignited due to the heat from the surface of the stove. Do not place candles on top of the stove.

ROUTINE MAINTENANCE AND CARE

WARNING

Do not clean glass when hot!

The Sterling requires minimal routine maintenance and care. The stove should always be cool and off when being cleaned or maintained.

The stove should receive regular cleaning on, under and around the stove to prevent the build-up of dust and lint. The exterior surfaces of the stove can be cleaned using soap and water and a soft cloth. Do not use abrasive cleaners, steel wool, chemical cleaners and/or a razor blade and take care *not to scratch the stones, glass or enamel finish (if so equipped) when cleaning the stove*. Your dealer will usually stock a gas fireplace glass cleaner or a window cleaning fluid will work adequately. The use of chemical or wax-based cleansers or polishes is not recommended due to the potential for discoloration of the stones when the residue of the cleaners or polishes is exposed to heat.

The firebox should receive periodic cleaning to prevent the accumulation of dust, lint and other debris. To clean the firebox, set the thermostat *to the OFF position, and turn off the gas at the gas control valve*. When the stove is cool, unfasten the front door and carefully remove the decorative ceramic fiber logs set taking care not to damage the logs or chip the enamel cast iron (if enameled). Clean the entire firebox, the burner tubes and carefully vacuum the entire surface of the logs set. Take care to thoroughly vacuum the posts (holes) along the top of the burner tubes.

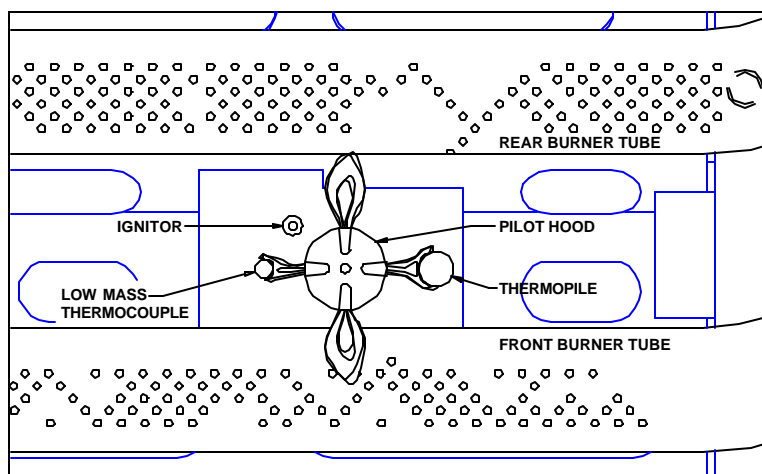
With the decorative ceramic fiber logs out of the firebox, fasten the door shut and momentarily light the stove according to the lighting instructions described elsewhere in this manual. Check to ensure that a flame is burning from each burner port. The pilot light flame should be large enough to engulf the sensor/thermocouple as described elsewhere in this manual (Initial Adjustments: Pilot Adjustment). Turn the stove off by setting the thermostat *to off, turning off the gas at the gas control valve*. Allow the stove to cool.

Check and clean any burner ports which are not burning or burning properly. Clean burner ports using a soft brush or vacuum cleaner. If the pilot light flame height needs adjustment it should be adjusted by qualified service personnel as described elsewhere to this manual.

Complete the cleaning procedure by carefully replacing the logs set within the firebox as described elsewhere in this manual. Close and fasten the front door. Turn on the gas, light the stove and check for proper operation.

Regularly check the area around the Sterling, to ensure it's kept free and clear from combustible materials, gasoline and other flammable vapors and liquids. Check that the flow of combustion and ventilation air is not obstructed.

Once a year the stove and venting system should be inspected by qualified service personnel to ensure that they are clean, free of obstruction, safe and in good working order. If service or maintenance is required it should be performed by qualified service personnel.



PILOT FLAMES

SERVICING AND TROUBLE-SHOOTING

This unit must be installed, adjusted, serviced and maintained by qualified service personnel only. Failure to properly install, adjust, service and maintain this gas appliance may result in an unsafe or hazardous condition which may lead to carbon monoxide poisoning, fire, explosion, personal injury and loss of life. Do not attempt to install, adjust, service or maintain this unit unless qualified to install, adjust, service or maintain gas-fired, vented appliances.

The Sterling will provide trouble-free operation under most circumstances. Should the unit perform in an abnormal manner or fail to operate, immediately discontinue operation and contact qualified service personnel for servicing. Do not attempt to service or adjust this unit unless qualified to do so. When servicing the unit follow the procedures described in this manual, as appropriate. Use factory-approved and generally accepted practices when servicing this appliance.

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

How To Obtain Parts And Service

The Sterling is covered by a limited 3 year warranty for parts and 1 year for labor from the date of purchase. The door glass and enamel finish (if enameled) are not covered by the warranty. Read the warranty card supplied with the unit for complete details. Complete and return the warranty card to HearthStone. Replacement parts for the Sterling are available from your dealer. For a list of replacement parts, see Appendix D.

Broken Glass On Front Door

WARNING

Do not operate this stove with the glass removed, cracked or broken. Do not use substitute materials. Replacement of glass should be done by a licensed or qualified service person.

If the glass on the front door is broken or cracked, immediately discontinue use of the stove. Contact your local Authorized HearthStone Dealer for a replacement door with factory installed glazing. To remove the door: turn off the gas, remove door screw, remove hinge pins, lift off the stove. To replace, reverse removal procedure.

Trouble-Shooting Guide

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
---------	----------------	-------------------

PILOT WILL NOT LIGHT

- Defective ignitor.

UCheck for a good connection between ignitor and electrode. Check wire insulation. If properly connected and no spark, replace ignitor.

- Defective or misaligned electrode at pilot.

UCheck the electrode gap and location. Should be a 1/8" gap in the flame area.

- Pilot orifice plugged.

UClean or replace pilot orifice.

- Insufficient gas pressure.

UCheck the inlet gas pressure.

PILOT WILL NOT STAY LIT AFTER CAREFULLY FOLLOWING LIGHTING INSTRUCTIONS

- Low gas pressure, or high gas pressure.

UCheck for proper inlet gas pressure for the gas being used.

- Defective thermocouple.

UCheck pilot flame to see that it is impinging on the top of the thermocouple. Clean and/or adjust pilot for maximum flame impingement.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
		<p>UEnsure that the thermocouple connection at the gas valve is tight, and thermocouple is fully inserted into the pilot bracket and is tight. (Hand tight, plus ¼ turn.)</p> <p>UCheck thermocouple output using millivolt meter at the back side of the valve where the blue wire connects. If the reading is less than 6mV, replace thermocouple.</p>
PILOT BURNING, NO GAS TO MAIN BURNER, VALVE KNOB IN THE "ON" POSITION, ON/OFF T-STAT SWITCH IN "ON" POSITION, OR IF T-STAT IS SELECTED, T-STAT IN "ON" POSITION.		
	<ul style="list-style-type: none"> ◦ T-stat is selected, or T-stat or wires defective. 	<p>UCheck wall T-stat/wires for proper connections. Place jumper wire across terminals at T-stat. If burner comes on, replace defective wall switch. If OK, place jumper across wall T-stat wires at gas valve. If burner comes on, tighten connections or replace faulty wires.</p>
	<ul style="list-style-type: none"> ◦ Thermopile may not be generating sufficient voltage. 	<p>UCheck thermopile output with the pilot burning, using a millivolt meter. Take meter readings across generator terminals of the gas valve. (TH and TP). Millivolt reading should be greater than 150mV. If not, replace thermopile. If the meter reading is OK, but the burner does not come on, replace the gas valve.</p>
	<ul style="list-style-type: none"> ◦ Plugged burner orifice. 	<p>URemove and check burner orifice, clean or replace. Note: do not use any metal cleaning device, as this may damage the orifice.</p>
PILOT AND BURNER COME ON. BUT GO OUT AFTER SOME WARM-UP.		
	<ul style="list-style-type: none"> ◦ Inconsistent, or insufficient flame on thermopile. 	<p>UCheck line pressure (APPENDIX C) to ensure that the correct inlet pressure is present for the type of gas being used. If propane pressure is inconsistent, check for water condensation at the regulator.</p> <p>UCheck proper venting.</p>
FREQUENT PILOT OUTAGE PROBLEM.		
	<ul style="list-style-type: none"> ◦ Pilot may be too low or blowing (high) causing the pilot safety to drop out. 	<p>UClean and/or adjust the pilot flame for maximum impingement on the thermogenerator and thermocouple.</p> <p>UCheck proper venting.</p>
CARBON BUILDUP ON LOGS, BURNERS, WINDOW GLASS AND/OR PILOT LIGHT ASSEMBLY (CAN BE PREDICTED BY A FLAME WHICH IS ORANGE).		
	<ul style="list-style-type: none"> ◦ An accumulation of carbon <i>anywhere</i> within the firebox is indicative of incomplete burning of the gas due to a lack of combustion oxygen or too much fuel for normal levels of oxygen. 	<p>UFirst carefully clean the carbon buildup from the effected areas within the firebox, then adjust the air shutters on the main burner tubes as described elsewhere in the manual. If this doesn't correct the problem, have a qualified service person check the gas pressure and orifice size.</p>
FLAME IS TOO BIG, HITTING THE TOP OF THE FIREBOX. UNIT IS OVERHEATING.		
	<ul style="list-style-type: none"> ◦ A flame which is too big can be caused by supply line or manifold gas pressure which is too high or improper air shutter settings on the main burner tubes. 	<p>UReview the sections on gas pressure adjustment and air shutter settings elsewhere in this manual for proper adjustment.</p> <p>UCheck if stove is operating on the gas it was intended for.</p>

OPTIONAL BLOWER FAN

An optional blower fan (#95-57010) is available from the dealer or manufacturer to boost heat output efficiency and improve air circulation within the room. It will come with complete installation instructions. The blower fan, which is powered by standard 110/115 volt, 60 cycle, 2.4 amp household current, is easily placed beneath the lower rear casting of the unit. The blower fan has a thermo-switch. When the stove heats up, the blower fan turns on. The blower fan will continue to operate for a period of time after the unit shuts off as it takes some time for the stove to cool down.

SPECIAL GAS INSTALLATION REQUIREMENTS FOR STERLING G (TO ACCOMMODATE ACCESSORY BLOWER INSTALLATION)

FIGURE 1

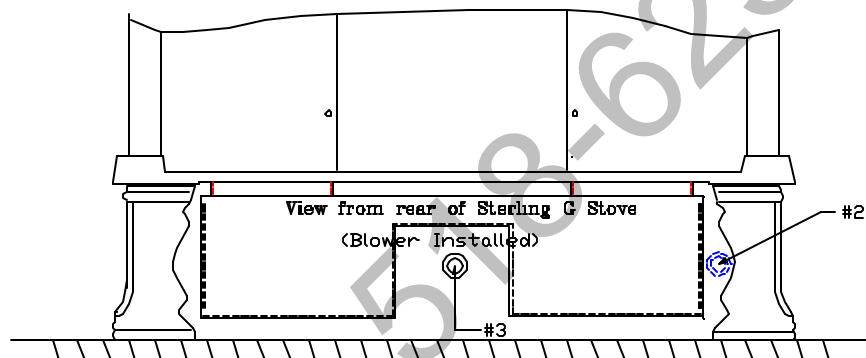
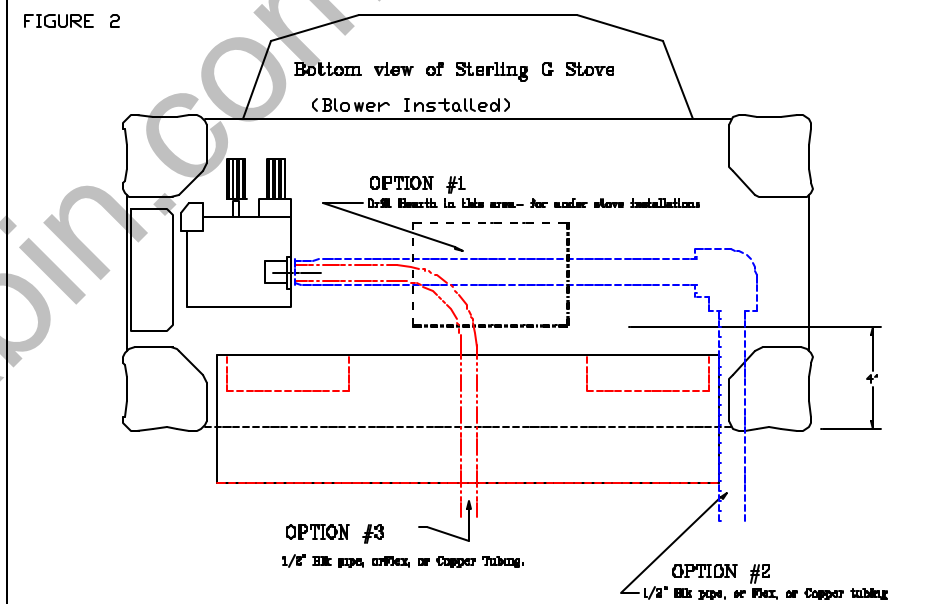


FIGURE 2



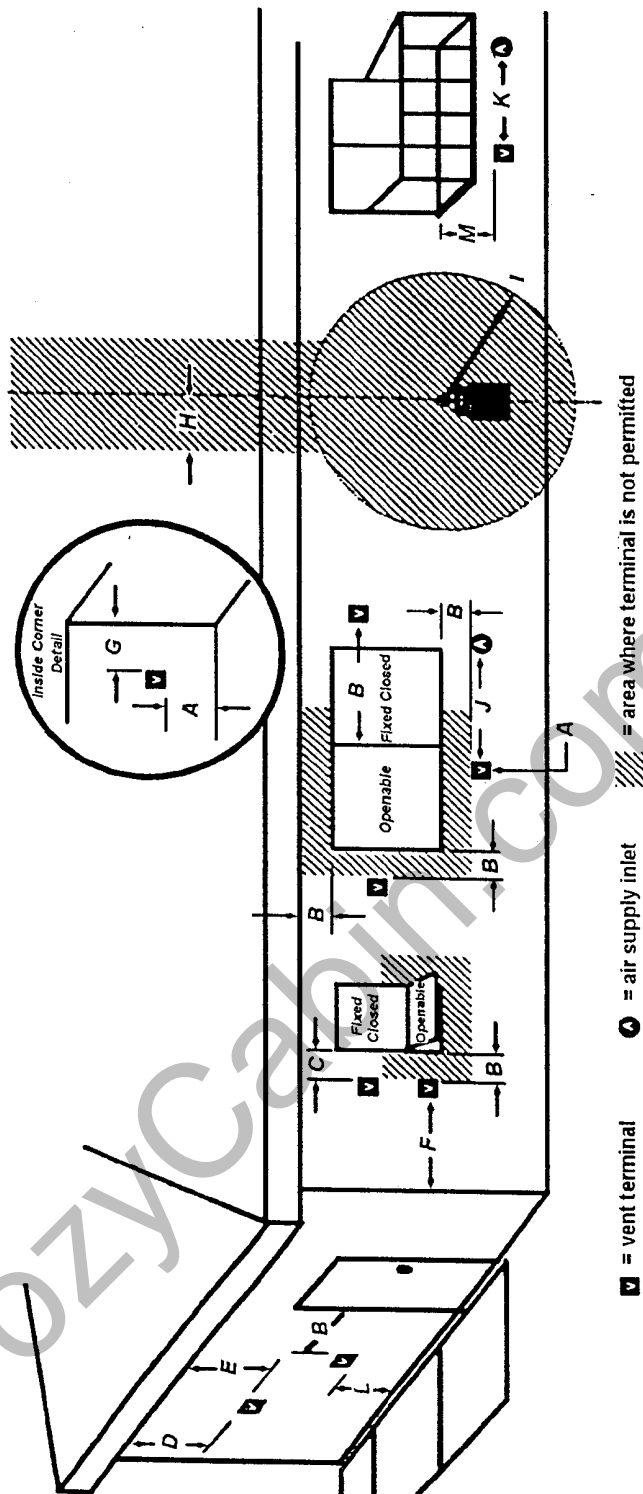
OPTIONS

1. Drill floor for gas line below stove.
2. Route Pipe, Flex or Copper around Blower.
3. Using Flexible Tubing or Copper, route gas line below blower.

REV. 5/23/97 BCB

B:\PROD_DEV\DRAWINGS\DETST_STG.DWG

EXTERIOR TERMINATION CLEARANCES



V = vent terminal
 A = air supply inlet
 // = area where terminal is not permitted

- A= clearance above grade, veranda, porch, deck, or balcony [*12 inches (30 cm) minimum]
 B= clearance to window or door that may be opened
 [*12 inches (30 cm) minimum for appliances ≤ 100 000 Btuh (30 kW)
 36 Inches (90 cm) minimum for appliances > 100 000 Btuh (30 kW)]
 C= clearance to permanently closed window [minimum 12 inches (30 cm) recommended to prevent condensation on window] [9"-USA]
 D= vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal [18 inches (46 cm) minimum]
 E= clearance to unventilated soffit [12 inches (30 cm) minimum]
 F= clearance to outside corner - 12"
 G= clearance to inside corner - 12"
 H= *not to be installed above a meter/regulator assembly within 3 feet (90 cm) horizontally from the center-line of the regulator
 I= clearance to service regulator vent outlet [*6 feet (1.8 m) min/3 ft.-USA]
 J= clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances [9"-USA]
 [*12 inches (30 cm) minimum for appliances ≤ 100 000 Btuh (30 kW)
 36 inches (90 cm) minimum for appliances > 100 000 Btuh (30 kW)]
 K= clearance to a mechanical air supply inlet [*6 feet (1.8 m) min/3 ft.-USA]
 L= † clearance above paved side-walk or a paved driveway located on public property [* 7 feet (2.1 m) minimum]
 M= clearance under veranda, porch, deck, or balcony [* 12 inches (30 cm) minimum †]

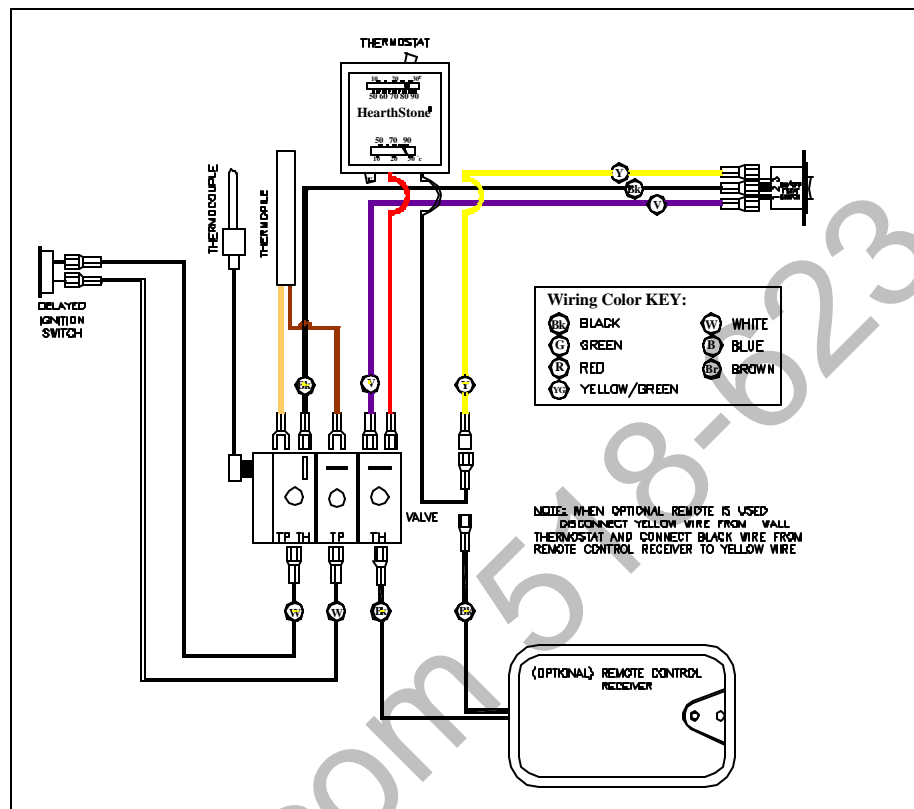
† a vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings*

‡ only permitted if verand, porch, deck, or balcony, is fully open on a minimum of 2 sides beneath the floor*

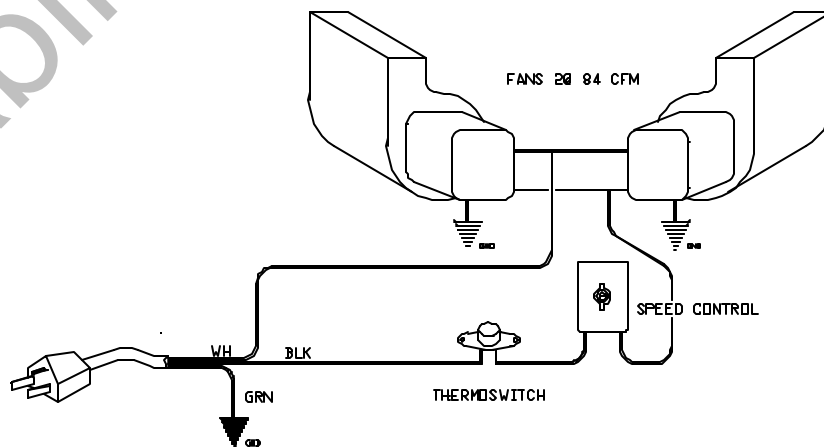
* as specified in CGA B149 Installation Codes Note: local Codes or Regulations may require different clearances

ELECTRICAL SCHEMATICS

Wiring Diagram - Sterling DV



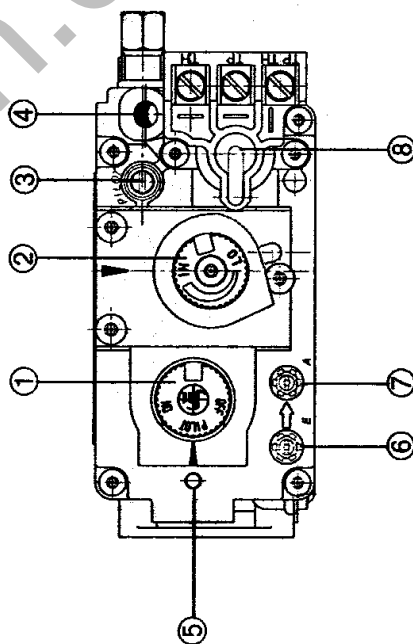
Optional Blower



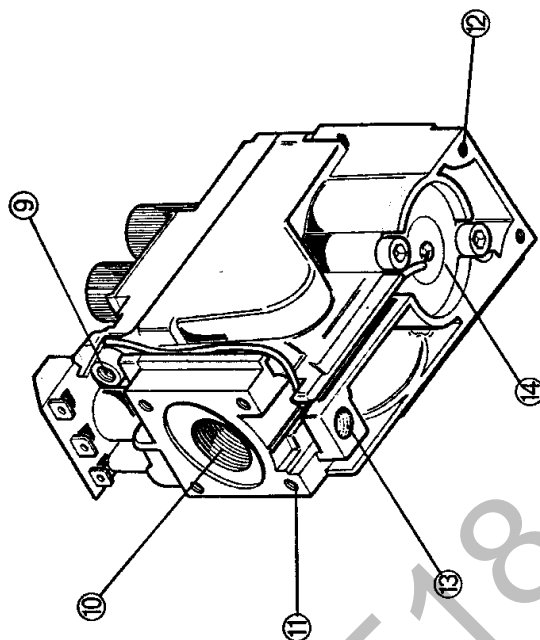
GAS CONTROL VALVE

VALVE DESCRIPTION

- ① Gas cock knob
- ② Manual HI-LO adjustment or pressure regulator adjustment
- ③ Pilot adjustment
- ④ Thermocouple connection
- ⑤ Mounting for piezo & bracket
- ⑥ Inlet pressure test point
- ⑦ Outlet pressure test point
- ⑧ Main operator
- ⑨ Pilot outlet
- ⑩ Main gas outlet



- ⑪ Flange securing screw holes
- ⑫ Additional valve mounting hole
- ⑬ Alternative TC connection point
- ⑭ Thermoelectric unit



REPLACEMENT PARTS

ITEM #		ITEM #	
1546-462	Top Stone	1546-462A	Side Stone
1546-463	Front Corner Stone	1546-464	Front Bottom Stone
2510-219-RS	Door	2510-303	Bottom Leg
2510-401	Top	2510-403F	Front Grille
2510-411-RF	Door Frame	2510-413	Side Leg
5500-2402	Ember Screen	7211-502	Rear Log
7200-120	Burner Orifice: Size 55	7211-503	Middle Log
7200-125	Burner Orifice: Size 56	7211-504	Front Log
7200-131	Burner Orifice: Size 46	7211-505	Embers
7211-310	Gas Valve (NG)	7211-202	Rear Burner Tube (Upper)
7211-372	Pilot Burner Assy (NG)	7211-212	Front Burner Tube (Lower)
95-57210	Log Assembly Kit	94-58405	Glass Kit
95-56311	LP Fuel Conversion Kit	7211-430	Piezo ceramic and wire
7211-470	Thermocouple	7211-090	Thermopile
7211-136	Pilot orifice .35mm (LP)	7211-391	4 Way pilot hood and clip
7211-163	Pilot orifice .62mm (NG)	7211-009	Pilot gas tube
95-56310	NG Fuel Conversion Kit		

SIMPSON DURA-VENT PARTS:

DESCRIPTION	ITEM #	ITEM #	ITEM #	ITEM #
	4" x 6" e"	4" x 6" e"	5" x 8"	5" x 8"
	Galvanized	Black	Black	Galvanized
6" Straight Pipe		908B	1208B	
9" Straight Pipe		907B	1207B	
12" Straight Pipe	906	906B	1206B	
24" Straight Pipe	904	904B	1204B	
36" Straight Pipe	903	903B	1203B	
48" Straight Pipe	902	902B		
11" - 14" e" Adjustable Straight Pipe	911B	1211B		
Vertical Termination Cap		991		
Horizontal Termination Cap		984	1284	
Snorkel		981		
Snorkel 36"			1281	
Snorkel 14"			1282	
45E Elbow	945	945B	1245	
90E Elbow	990	990B	1290	
Vinyl Siding Standoff		950	1250	
Wall Thimble Covers		940	1240	
Wall Thimbles	942			1247

Chimney Liner System:

	ITEM #
Termination Cap	991
Direct-Vent Chimney Liner Termination	923GK
Chimney Liner Flex	710
Co-Axial To Co-Lineal Connector	923GCL

Dura-Vent Starter Collars:

	ITEM #
4" X 6" e" Rear Exit	95-60924HC
5" X 8" Rear Exit	95-61223HA
4" X 6" e" Top Exit	95-60924H

Minimum Vent Kit #95-65000

Kit Contents:	ITEM #	
5" X 7" Gasket		3160-101
8" X 9 1/2" Gasket		3160-102
5X8 Horizontal Adj. Slider-S.G. D.V. Starter		5701-1223HB
Wall Thimble		5701-1242
Horizontal Square Termination Cap		5701-1284
Wall Thimble Cover	5701-1240	

SAFETY LABEL

LISTED GAS-FIRED DIRECT VENT FIREPLACE HEATER, RADIATEUR VENTILE
 MODEL NAME: STERLING-G DIRECT VENT GAS FIREPLACE HEATER
 NOT FOR USE WITH SOLID FUEL


 SERIAL # 8700-

TESTED TO: ANSI Z21.88-1998 CSA 2.33-M98 *VENTED GAS FIREPLACE HEATERS*
 CAN/CGA - 2.17

CERTIFIED FOR CANADA/HOMOLOGUE POUR LE CANADA

APPROVED FOR MOBILE HOME INSTALLATION

THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, IF ANY; IF NOT, FOLLOW THE CURRENT EDITIONS OF ANSI Z223.1 (U.S. INSTALLATION) OR CAN1-B149 (CANADIAN INSTALLATION). FOR MOBILE HOME INSTALLATION, INSTALL PER THE MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARD, TITLE 24 CFR, PART 3280 (U.S.) OR CAN/CSA Z240 MH (CANADA).

	<input type="checkbox"/> NATURAL GAS	<input type="checkbox"/> LP
INPUT RATING (Btu/hr) 0-1370 m	36,000	35,000
ORIFICE SIZE (DMS) 0-1370 m (Rear/Front)	46/46	55/56
MANIFOLD PRESSURE (in. W.c./kpa)	3.5/0.87	10.0/2.48
MAN. PRESSURE - LO SETTING (in. W.c./kpa)	1.2/0.3	3.3/0.8
MINIMUM INLET PRESSURE (in.w.c./kpa)	5.0/1.24	11.0/2.74
MINIMUM INPUT (btu/hr)	21,200	20,000
MAXIMUM OUTPUT (btu/hr) (CANADA)	29,400	28,900

MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

BACK OF STOVE TO BACK WALL	2" / 50 mm
EDGE OF TOP PLATE TO SIDEWALL	4" / 100 mm
EDGE OF TOP PLATE TO DIAGONAL WALL	3" / 75 mm
EDGE OF TOP TO ALCOVE CEILING	14" / 355 mm

FLOOR PROTECTION (MIN R VALUE 1.1) REQUIRED FROM
 FRONT OF UNIT TO 16" / 406mm (FROM GLASS)

BLOWER ASSEMBLY (Part number 95-57010) MAY BE USED
 ELECTRICAL RATING: 115 VOLTS, 2.4 AMPS, 60 HZ UL, CSA LISTED.
 DANGER: RISK OF ELECTRICAL SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT. DO NOT ROUTE POWER CORD UNDER HEATER.

THIS DIRECT VENT GAS FIREPLACE IS NOT FOR USE WITH AIR FILTERS AND HAS BEEN SEALED FOR PROPER VENT AIR INTAKE SYSTEM INSTALLATION

THIS APPLIANCE MUST BE PROPERLY CONNECTED TO A VENTING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CAUTION: DO NOT OPERATE THE APPLIANCE WITH GLASS REMOVED, CRACKED OR BROKEN. REPLACEMENT OF THE PANEL(S) SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON.

CAUTIONER: N'OPERE L'APPAREIL AVEC LE VERRE ENLEVE, CRAQUE OU CASSE. LE REPLACEMENT DU PANNEAU(S) DEVRAIT ETRE FAIT PAR UNE PERSONNE DE SERVICE QUALIFIE OU AUTORISE.

THIS APPLIANCE IS ONLY FOR USE WITH THE TYPE OF GAS INDICATED ON THE RATING PLATE AND MAY BE INSTALLED IN AN AFTERMARKET, PERMANENTLY LOCATED, MANUFACTURED (MOBILE) HOME WHERE NOT PROHIBITED BY LOCAL CODES. SEE OWNER'S MANUAL FOR DETAILS. THIS APPLIANCE IS NOT CONVERTIBLE FOR USE WITH OTHER GASES, UNLESS A CERTIFIED KIT IS USED.

MANUFACTURED BY: HearthStone, MORRISVILLE, VERMONT 05661

Date of Manufacture

1999 2000 2001 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

DO NOT REMOVE OR COVER THIS LABEL

MADE IN USA

3300-131

SPECIFICATIONS

	Natural Gas	LP
INPUT RATING (Btu/hr) 0-1370 m	36,000	35,000
ORIFICE SIZE (DMZ) 0-1370 m (Front/ Rear)	46/46	55/56
MANIFOLD PRESSURE (in.W.c./kpa)	3.5 / 0.87	10.0 / 2.48
MANIFOLD PRESSURE LO SETTING (in.W.c./kpa)	1.2 / 0.3	3.3 / 0.8
MINIMUM INLET PRESSURE (in.W.c./kpa)	5.0 / 1.24	11.0 / 2.74
MINIMUM INPUT (Btu/hr) 0-1370m	21,200	20,000
MAXIMUM OUTPUT (Btu/hr) (Canada)	29,400	28,900
MAXIMUM INLET PRESSURE (in. W.c./kpa)	10.5 / 2.61	13.5 / 3.36

NOMINAL EFFICIENCY WITH A FAN 82% 83%

Fuel requirements Natural Gas (NG) OR Liquid Propane (LPG)
 Fuel supply line size 1/2"
 Ignition Standing pilot light

Certification TESTED TO:ANSI Z21.88-1998 ! CSA 233-M98 "Vented Gas Fireplace Heater"; CAN/CGA-2.17 "Vented Gas Fireplace Heaters for use at High Altitudes",CGA P4.1 "Clean Choice"

Approved for use in the state of Massachusetts by, The Commonwealth of Massachusetts Board of State Examiners of Plumbers and Gas Fitters.

This appliance may be installed in an aftermarket permanently located, manufactured (mobile) home, where prohibited by local codes.

Cet appareil peut être installé dans une maison préfabriquée (mobile) déjà installée à demeure si les règlements locaux le permettent.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Cet appareil doit être utilisé uniquement avec le type gaz indiqué la plaque signalétique. Ne pas convertir cet appareil à ?autres gaz, à moins ?utiliser une trousse de conversion certifiée.

Warranty: 3 year limited warranty, excluding door glass, gasket and enamel finish

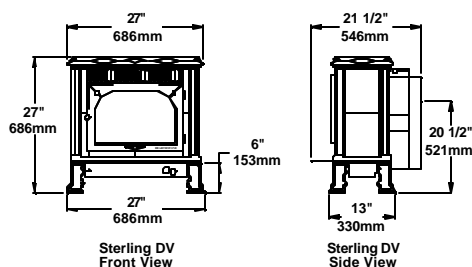
Refer to Appendix F - Safety Label for Canadian ratings and orifice sizes for high altitude installations.

C.G.A./A.G.A. ANSI APPROVAL

Gas appliances must be tested and certified by a nationally recognized testing and certification laboratory to ANSI (American National Standards Institute) gas appliance safety standards in the U.S.A./ and to Canadian Gas Association Standards in Canada. HearthStone Sterling gas units have met all necessary standards.

There are a number of nationally recognized testing and certification agencies throughout the United States and Canada. Among them are ITS/Warnock Hersey, A.G.A. Laboratories, C.G.A. Laboratories, Omni Laboratories, etc. HearthStone Sterling gas units have been tested and certified by ITS/Warnock Hersey INC., 8431 Murphy Dr., Middleton, WI 53562.

Check with local building code officials prior to installing to ensure compliance with local codes and procedures. In the absence of local codes, units must be installed in accordance to National Fuel Gas Code ANSI Z223.1.



DIMENSIONS

HEARTHSTONE GAS-FIRED STOVE AND INSERT LIMITED WARRANTIES

These warranties give you specific legal rights. You may also have other rights which vary from State to State.

HearthStone Quality Home Heating Products, Inc. (HearthStone) warrants **to the original purchaser only** (the "Original Purchaser") the new gas-fired stove/insert manufactured by HearthStone and purchased by the Original Purchaser (referred to as the "Stove" for simplicity) against any of the occurrences listed in this document that result from defects in material or workmanship. All obligations of HearthStone under this document commence on the date the Original Purchaser purchases the Stove (the "Purchase Date").

LIMITED LIFETIME WARRANTY

HearthStone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- I. All cast iron parts, including the cast iron heat exchanger – against breakage, cracking or burn-through.
- II. All stones – against cracking or breakage due to thermal stress, **excluding** surface and hairline cracks and scratches that do not affect the operation or safety of the Stove.
- III. Glass – against breakage due to thermal shock.

LIMITED FIVE-YEAR WARRANTY

HearthStone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

1. Firebox and firebox baffle – against breakage, cracking or burn-through.
2. Convective heat exchanger – against breakage, cracking or burn-through.
3. Burners, air shutters and orifices – against breakage, cracking or burn-through.
4. Ceramic logs and embers – against breakage, cracking or burn-through.

This warranty expires on the fifth (5th) anniversary of the Purchase Date.

LIMITED THREE-YEAR WARRANTY

HearthStone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

1. Gas train, including gas valve, millivolt wiring, spill switch, pilot assembly, thermopile, thermocouple, piezo igniter, and, if the Stove is a vent-free model, ODS system – against breakage or malfunction.

This warranty expires on the third (3rd) anniversary of the Purchase Date.

LIMITED ONE-YEAR WARRANTY

HearthStone warrants the following parts of the Stove against the following occurrences that result from defects in material and workmanship:

- I. Enamel Finish – against peeling or fading, **excluding** chipping, mechanical abrasion, chemical abrasion or crazing.
- II. Gaskets and sealants – against breakage or deterioration.
- III. Accessories and electrical components such as blowers, switches and thermo discs, **excluding** venting components, hearth components, electrical components and other components or accessories used in conjunction with the installation of the Stove **not** manufactured or supplied by HearthStone – against breakage or malfunction.

This warranty expires on the first (1st) anniversary of the Purchase Date.

EXCLUSIONS

The warranties contained in this document do not cover, nor is HearthStone responsible for:

1. Damage resulting from installation or operation of the Stove in a manner contrary to the owner's manual.
2. Damage or non-performance resulting from faulty or incomplete setup, installation and start-up or mishandling, abuse, or misuse of the Stove, including but not limited to over-firing.
3. Damage resulting from installation, modification, alteration, repair or service of the Stove by any party other than HearthStone or an authorized HearthStone dealer (a "Dealer").
4. Damage due to water or due to installation of the Stove in a damp or high condensation area.
5. Damage due to installation of the Stove in an atmosphere contaminated by damaging chemicals, including but not limited to chlorine, fluorine or salts.
6. Scratches on glass, enameled surfaces or stones due to mechanical abrasion.
7. Standard wear and tear of the Stove resulting from normal usage over time.
8. Damage, operational-related problems, or inadequate performance caused by site, installation or environmental conditions beyond HearthStone's control, including but not limited to nearby trees, rooftops, buildings, wind, hills, mountains, inadequate or excessive venting, insufficient make up air, or negative air pressure whether or not caused by mechanical systems such as furnaces, exhaust fans, clothes dryers, etc.

9. A defect in any part of the Stove if the Original Purchaser fails to comply with HearthStone's or a Dealer's request to ship the part or the Stove to HearthStone or a Dealer, as the case may be.

THE WARRANTIES CONTAINED IN THIS DOCUMENT ARE EXCLUSIVE AND ARE GIVEN BY HEARTHSTONE AND ACCEPTED BY THE ORIGINAL PURCHASER IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND ANY OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS, OR REMEDIES IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM HEARTHSTONE'S NEGLIGENCE, ACTUAL OR IMPUTED. ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE GIVEN **ONLY** TO THE EXTENT REQUIRED BY FEDERAL OR STATE LAW. EXCEPT AS OTHERWISE REQUIRED BY STATE LAW, UPON THE EXPIRATION OF THE EXPRESS LIMITED WARRANTIES CONTAINED HEREIN, **NO** IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THE SUBJECT STOVE. **SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

THE WARRANTIES CONTAINED IN THIS DOCUMENT EXTEND **ONLY** TO THE ORIGINAL PURCHASER OF THE STOVE WARRANTED HEREUNDER. THEY DO NOT EXTEND TO ANY SUBSEQUENT OWNERS.

UNDER NO CIRCUMSTANCES SHALL HEARTHSTONE BE LIABLE TO THE ORIGINAL PURCHASER OR ANY OTHER PERSON FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGE TO PROPERTY OR PERSONAL INJURIES, WHETHER ARISING OUT OF BREACH OF WARRANTY, TORT, OR OTHERWISE, EVEN IF HEARTHSTONE HAS BEEN APPRAISED OF THE POSSIBILITY OF SUCH DAMAGES. **SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

QUALIFYING FOR WARRANTY COVERAGE

To obtain performance of any obligation under this document, the Original Purchaser must, **within the applicable warranty time period**, contact HearthStone, at the address listed in the Warranty Registration section below or at (802) 888-5235, or a Dealer for instructions regarding the return of defective parts for repair, the return of the stove for repair, or a Dealer service call. The Original Purchaser should refer to the Dealer network search engine contained on HearthStone's Web site (www.hearthstonestoves.com), or call HearthStone at (802) 888-5235, to find a Dealer nearest the Original Purchaser's location.

REMEDY

The remedy for any breach of the foregoing warranties will consist of repair or replacement, at HearthStone's option, of any covered defect in the Stove. When the Original Purchaser contacts HearthStone or a Dealer, HearthStone or the Dealer, as the case may be, will instruct the Original Purchaser to **either** return the defective part, or the entire Stove (if needed), with shipping prepaid, to HearthStone or a Dealer **or** allow a Dealer to make a service call at the place where the Stove is located. In the event the Original Purchaser refuses to allow a Dealer to make a service call, HearthStone or a Dealer, as the case may be, will request that the Original Owner return the defective part, or the entire Stove (if needed), with shipping prepaid, to HearthStone or a Dealer. **Notwithstanding any other provision of this document, the Original Purchaser shall pay for any travel fees and service charges related to a Dealer's service call.**

Parts: HearthStone will replace defective parts covered by the foregoing warranties at no charge.

Labor: Within the first (1st) year after the Purchase Date, HearthStone will pay for warranty labor performed by a Dealer at HearthStone's published labor rates in effect at the time the labor is performed. Thereafter, the Original Purchaser is responsible for the cost of labor.

Shipping cost for parts: Within the first ninety (90) days after the Purchase Date, HearthStone will pay for the shipping of Stove parts covered by any of the foregoing warranties to and from HearthStone or a Dealer, as the case may be. Thereafter, the Original Purchaser is responsible for all shipping costs related to shipping Stove parts to and from HearthStone or a Dealer, as the case may be.

Shipping cost for the Stove: Within the first (1st) year after the Purchase Date, if the Original Purchaser is instructed to return the Stove to HearthStone or a Dealer for repair, HearthStone will pay fifty percent (50%) and the Original Purchaser will pay fifty percent (50%) of the shipping costs related to shipping the Stove to and from HearthStone or a Dealer, as the case may be. Thereafter, the Original Purchaser is responsible for one hundred percent (100%) of all of the shipping costs related to shipping the Stove to and from HearthStone or a Dealer, as the case may be. Notwithstanding any other provision of this document, in no event will HearthStone pay for any Dealer fees or other fees for pick up or delivery of the Stove returned for repair; the Original Purchaser shall be responsible for any such fees.

WARRANTY REGISTRATION

The Original Purchaser may send a completed and signed Warranty Registration Form, which is enclosed in the Stove warranty packet, to the following address:

HearthStone Quality Home Heating Products, Inc.
Warranty Department
317 Stafford Avenue
Morrisville, VT 05661

NOTE: SENDING IN THE SIGNED WARRANTY REGISTRATION FORM IS NOT A CONDITION OF WARRANTY COVERAGE OR HEARTHSTONE'S PERFORMANCE.